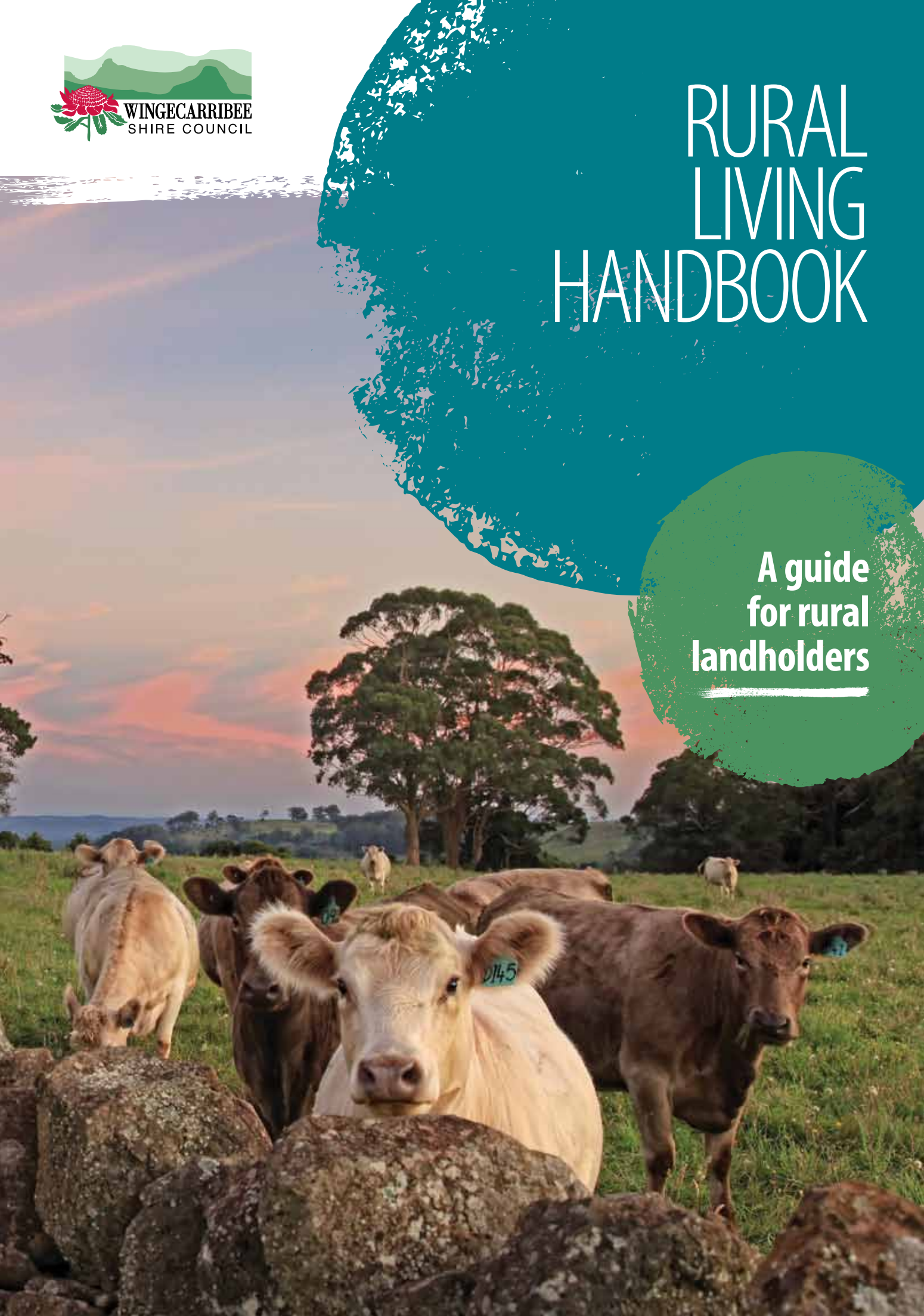


RURAL LIVING HANDBOOK

A guide
for rural
landholders



This is *Version 1 Revision 0* of the Rural Living Handbook. The handbook will be regularly updated. Please check Council's website for the latest version of the handbook.

www.wsc.nsw.gov.au

Disclaimer

This handbook is not a comprehensive guide to managing your land. It is intended to help you find good advice. Council takes no responsibility for the information presented in this booklet which has been provided by contributors other than Council.

Acknowledgements

The contents of this Rural Living Handbook were compiled as a template for councils throughout Sydney's drinking water catchments. It is a collaborative project built on the work of Jack Miller, Landscape Planner, Goulburn Mulwaree Council, Upper Lachlan Shire Council and contributions by various government and community stakeholders. Water NSW (formerly The Sydney Catchment Authority) has made a significant contribution to the development and publication of the handbook.

Wingecarribee Shire Council would like to thank the following organisations for their contributions to the Rural Living Handbook. The expertise of their staff, especially those working locally, has greatly added to the relevance of the handbook.

Office of Environment and Heritage
Department of Primary Industries Water (DPI Water)
South East Local Land Services
Greater Sydney Local Land Services
Water NSW
NSW Farmers Association
Rural Fire Service
Department of Primary Industries (DPI)
TAFE NSW Illawarra
WIRES
DPI - Lands
Farmsafe
Bathurst Regional Council

Wingecarribee Shire Council gratefully acknowledges the Upper Murrumbidgee Catchment Coordinating Committee (UMCCC) for allowing information from the publication 'Look after your natural assets' to be reproduced in this publication. 'Look after your natural assets' was produced by volunteers, funded by the ACT Government and the Murrumbidgee Catchment Management Board, and is copyright to the UMCCC and the Wamboin Landcare Committee. Wingecarribee Shire Council would also like to acknowledge its staff for developing the local content of the handbook.

Photography credits

Adam Hollingsworth © Water NSW – 4, 5, 11, 24, 37, 48, 64, 74
Wildlife Friendly Fencing © - 49
Jane Hutton-Potts © - 68
Dee Kramer © - cover, 1, 33, 51, 52, 55, 66, 67

CONTENTS

Welcome to Wingecarribee Shire	2
Local map	3
Introduction to rural living	4

BUYING YOUR PROPERTY

Moving out of the city	5
Living in the region	7
Planning and managing your rural property	8

NATURAL RESOURCES

Water	11
Soil	17
Native plants and animals	20
Firewood Collection	24
Fire	26
Weeds	28
Pest animals	30

PROPERTY MANAGEMENT

Waste management	33
Effluent management	36
Stormwater	40
Chemicals	42
Wood smoke and heating	45
Stock	47
Fences	49
Grazing management	51
Farm safety	52
Safety on rural roads	54
Absentee landholders	56
Developing your property	57
Improving your skills	62
Making a living	63

LOCAL INFORMATION

ACRONYMS

Welcome to Wingecarribee Shire

This timely publication provides comprehensive information for existing and prospective landholders that live in or are planning to purchase rural land in this very special place.

Wingecarribee Shire is a beautiful bushland shire with over 60 per cent of the land area covered by native vegetation. Wingecarribee Shire is a major component of the Southern Highlands Link in the Great Eastern Ranges corridor, a 3600 km national corridor linking Victoria, New South Wales and Queensland. This national corridor is becoming increasingly important for biodiversity conservation due to the threats posed by climate change and loss of habitat from urban and agricultural development. The *Wingecarribee Local Environmental Plan (2010)* reflects the importance of the Great Eastern Ranges with the listing of Regional Wildlife Habitat Corridors within the Shire.

The native bushland in Wingecarribee Shire supports ecological systems and wildlife that are highly valued by locals and visitors alike. The Shire also has fertile and productive agricultural land due to the generally good rainfall patterns and soil types found here. The agricultural land supports many different industries including horticulture, viticulture, beef and dairy cattle grazing and other rural enterprises.

Our natural areas are vulnerable to fragmentation and clearing for agriculture and residential development. The shire is a desirable place to live and urban development pressures from both Sydney and Canberra continue to increase. Furthermore, the majority of the Shire falls within the Sydney Drinking Water Catchment area, making our management of water quality especially important.

We need to get the balance right between long-term conservation and protection of our diverse and wonderful native plants and animals, productive use of the land and protection of water quality and catchment health.

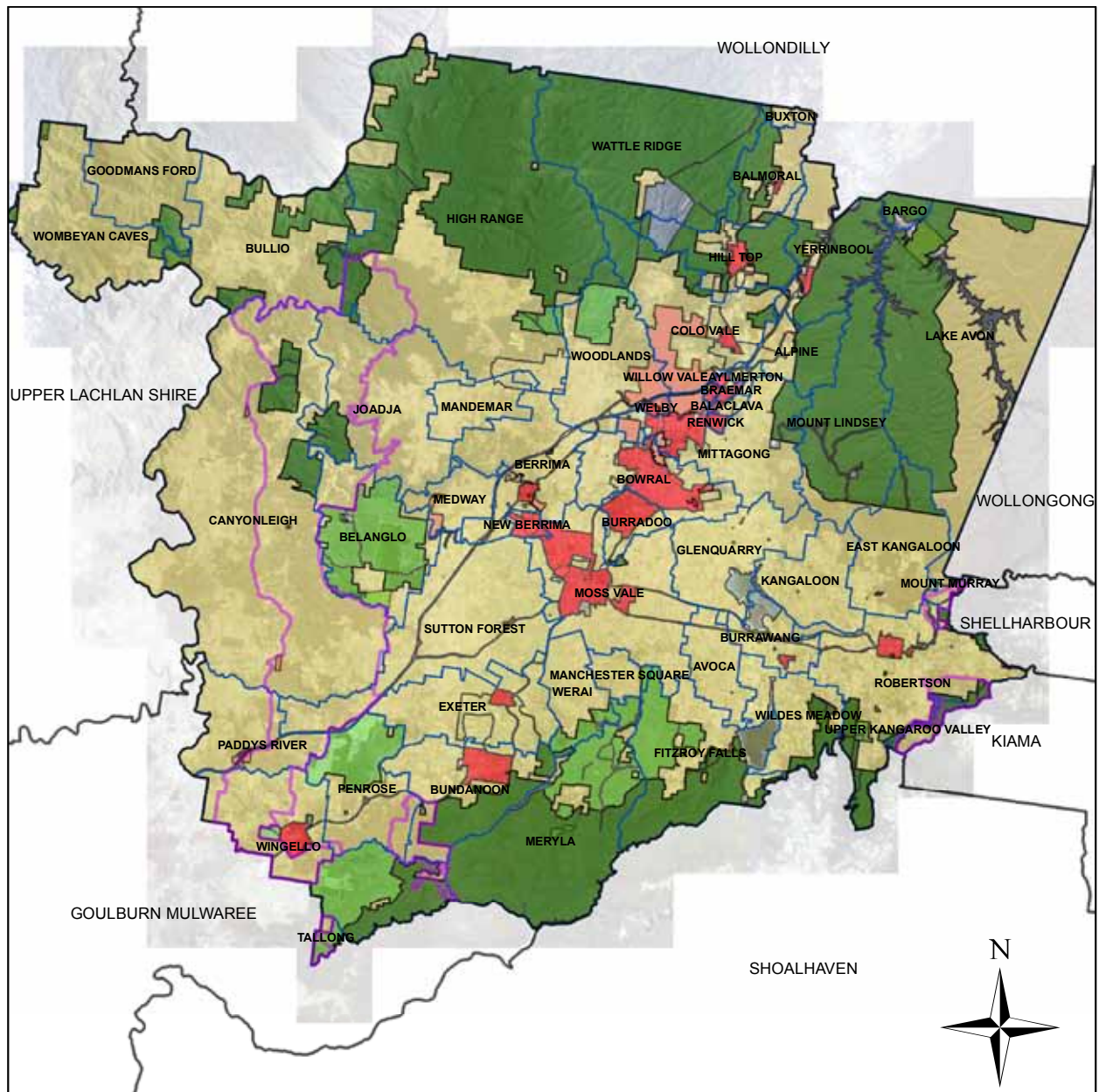
This handbook will help you to consider your responsibilities as a rural landholder and natural resource manager and help you to plan carefully and fully understand your responsibilities as caretakers of the land. **The handbook specifically focuses on land within Rural (R) or Environmental (E) zones, but may also be informative for other land use zones where agricultural activities are permissible.**

There are comprehensive information resources on our website and we have a dedicated and professional natural resources team at Council who can assist you with questions you may have about rural living in Wingecarribee Shire. We also welcome your feedback on future improvements to this handbook.

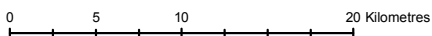
It gives me great pleasure to commend this publication to you, your friends and families.

General Manager
Wingecarribee Shire Council

Local map



1:380,000



Created by E&S Branch, Wingecarribee Shire Council, May 2016

Any information (numerical or otherwise), representation, statement, opinion or advice expressed or implied in this publication is made in good faith but on the basis that the council of the shire of Wingecarribee, its agents and its employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any information, representation, statement, or advice referred to above.

- LEP Regional Wildlife Habitat Corridor
- Localities
- National Parks
- State Forests
- WSC Bushland Reserves
- Towns and Villages
- Rural and Environmental Lands



Copyright © Wingecarribee Shire Council, Copyright © Land and Property Management Authority (LPMA) 2012

Introduction to rural living

‘Getting away from it all’ is an Australian dream. In our area, getting away from it all often involves buying a rural block. Rural blocks can be productive farmland, a bush block or a combination of both.

For some, getting away from it all means finding a healthy environment to raise children, or a place to retire away from the stress of the city. Others want to commune with nature or find a weekend escape.

The environment is under pressure from our collective lifestyles. All levels of government are pursuing sustainable development to protect our environment for the future.

Local activities have a significant effect on water quality and catchment health. We have a responsibility to ensure that we care for and maintain healthy rivers, streams and bushland.

We also need to get along well with our neighbours so that we can all achieve our individual goals without affecting the pleasure of others. However, the rural landscape is a productive farming and resource area, and some of the legitimate activities carried out in the area may have unavoidable impacts.

Be aware that some rural activities might affect you, and the level of services here may not be the same as in more built up areas. Your activities, in turn, may affect others.

Different people will want to manage their land in different ways. Some will want to keep and enhance the existing bush. Others will want to run stock and cultivate crops. Whatever your goals as a landowner or manager, you need to be aware of your rights and responsibilities, and the capacity of your land to support your endeavour.

The Rural Living Handbook brings together some of the significant issues that you will face as a rural landowner or land manager in our community. It also provides contact details of people and organisations who provide support to rural landowners.

We hope this handbook helps you get the most out of your rural property, so that you can improve your land’s productivity, protect the health of your animals and the environment, contribute to your local community – and above all, enjoy your rural block.





BUYING YOUR PROPERTY

Moving out of the city

Before you decide to buy a rural property, consider the following questions. You should also get legal advice before buying any property. This handbook provides important information to help you start to answer many of them.

- Do you know the history of the property? Request a property search from Local Land Services to ensure there are no outstanding rates, levies, known chemical residues or animal health issues on the property.
- What stock did the previous owner have? Did they sow pastures and use fertilisers? Are there any rubbish dumps on the property that you will need to remediate? Are there pest animals such as rabbits and foxes?
- Is the activity that you plan for the property suited to the landscape and capability of the land?
- Is there enough water to carry out the activity that you have in mind and is it of suitable quality?
- Are all required services provided to the property? If not, can they be provided economically? Or is it an area that will always have limited services? Services include phone, gas, water, sewer and electricity.
- Do you know what the regulations and conditions are for building dams or sinking bores? Do you know that digging near a watercourse requires a permit?
- Are you aware that in most instances you require approval to remove native vegetation including trees and shrubs? How might this affect your activities?
- Does the zoning of the land allow your proposed use, or will you need to apply for a change of land use or any other permit?

BUYING YOUR PROPERTY

- Are there good quality pastures? Are they dominated by native or introduced species?
 - What weeds are on the property? Are any of them declared as noxious weeds? Is there a Noxious Weed Notice (Section 18) on the property?
 - Is there soil erosion on the property that may need to be remediated and which might be time consuming and expensive to fix?
 - Is the soil fertile and the pH appropriate for the pasture, crops and any other produce that you want to grow?
 - Are the fences in good repair and suitable for confining stock and the grazing management of the property?
 - Are there mining leases over the property?
 - Are there any derelict mine shafts on the property? If so, are they fenced to ensure your safety?
 - If there is no existing dwelling and you want one, does the land have a building entitlement?
 - Are there existing or proposed adjacent land uses that will affect your enjoyment of the property? For example, are there legitimate rural uses nearby such as agriculture, quarries, mines and forestry that produce dust, odours or noise?
 - Is there a property vegetation plan (PVP) agreement over part of the property that requires you to undertake specified management actions, and limits the land uses on part of the property?
 - Will the amount of time and money required to control weeds, erosion and pest animals be excessive?
 - Ask Council if there are:
 - any development applications current for the nearby area
 - other developments that have been approved but not commenced
 - any restrictions on developing certain desired land uses.
 - Have you examined the Section 149 planning certificate from Council closely and discussed any potential constraints with Council and your conveyancer or solicitor? (See page 59 for more information.)
 - Is the land prone to flood or bushfire? Will you need to undertake any management activities to minimise these impacts?
 - Are there any rights-of-carriageway or other easements on the property that need to be maintained or which may allow neighbours access?
 - Are there any covenants or agreements on the property that protect certain areas?
 - Is there enough shade and water for stock?
 - Are any threatened species of plants, animals or endangered ecological communities known to occur on the property?
- After considering all these questions, will the property provide the rural lifestyle that you are looking for?**



Living in the region

Wingecarribee Shire is a 2700 km² local government area located in the Capital Country region between Sydney and Canberra. It is part of the area known as the Southern Highlands of NSW as much of the area is located at least 640 metres above sea level.

Wingecarribee is an aboriginal word thought to mean “waters to rest beside” or “a flight of birds” and is well known for its beautiful scenery, good rainfall, fertile soil, native wildlife and diverse natural environments. A variety of agricultural land uses including beef and dairy cattle grazing, viticulture, horticulture, alpacas, horses and small holdings are found here.

The pattern of development across the shire is one of small towns and villages, separated by a semi-rural landscape.

Residents benefit from living close to Sydney and Canberra, while enjoying a semi-rural lifestyle.

This LGA is a biodiversity hotspot with over 374 native animal species recorded. It is bounded by the Greater Blue Mountains World Heritage Area to the north, Morton National Park to the south, Bangadilly National Park to the west and Macquarie Pass National Park and Upper Nepean State Conservation area to the east. There are important regional wildlife corridors linking reserved National Park land to the north, south and east (local map page 3).

The Southern Highlands link is an important component of the Great Eastern Ranges national landscape corridor connectivity project. This large-scale and visionary collaboration is about providing refuges and corridors for wildlife and resilience in the face of climate change.

It is important that all remnant native bushland, forests, grassland and wetlands are retained as much as possible. This guide will help you to get the balance right between lifestyle, conservation and productive agriculture.

This region supports rural industries with facilities including the Regional Livestock Exchange at Moss Vale and through events like the annual agricultural shows, the Home and Garden Show, and farmer’s markets. Refer to the web pages and contacts at the back of this guide for more information.

Playing your part in the region



Good practices on your rural property will benefit you, the environment and the prosperity of the region. By looking after water, soil, plants and animals you will benefit not only the natural environment, but also your stock, other agricultural activities and other landholders in the local area and downstream. Good practices will also help to ensure your safety.

Living in the region brings with it a responsibility to play your part in keeping the local environment and waterways healthy.

This handbook will help you find out about good environmental and safety practices. Neighbours and other landholders in the region can also help you. Contact local authorities such as Council and state government agencies for advice. Get to know the local agricultural, business, tourism and industry activities. These activities combine to support the society and economy of the region. Look for and join local branches of organisations such as the Rural Fire Service and Landcare. Volunteering with these groups will be a good introduction to the local community and provide benefits to your property and the wider environment.

You can play your part in the local region as a rural landholder.

Planning and managing your rural property

Property plans can help you to achieve your rural living goals by setting up the basis for efficient and sustainable property management. This will help you to play a part in supporting a healthy landscape and prosperous region.

Property plans take a whole-of-property approach and are useful for both farmers and rural residential landholders.

Beginning your property plan

There are a number of methods and documents or, if you prefer, property planning consultancies that can help you to develop a property plan. The basic property plan guide below may help get you started.

Property plan guide

1. What do you want to achieve on your property? What is your vision?
2. Obtain a good map of your property. Aerial photographs are very useful, as well as surveyor's boundary plans, topographic and cadastral plans. The map will need to be to a metric scale of a large enough size to clearly show the features of the property.
3. You will need to identify the following:
 - soil types and soil characteristics (pH, salinity, erodibility, phosphorus, nitrogen and mineral content)
 - slope
 - extent of native vegetation and vegetation community type
 - streams, gullies, drainage lines and dams
 - flood liable land
 - erosion and salinity prone areas
 - water and shade areas for stock
 - rock outcrops
 - water supply
 - climate, rainfall and seasonality
 - landscape types and physical features
 - current land uses, and
 - property infrastructure such as fences, tracks, sheds and services such as phone lines and electricity).
4. Carry out a SWOT analysis of the property's capabilities:
 - What **Strengths** does the property have that you can take advantage of? (Such as areas of high quality soils.)
 - What **Weaknesses** will need attention before they cause problems? (Such as existing weed infested areas.)
 - What **Opportunities** are there to develop your resources further? (Such as moving fence lines to improve management.)
 - What **Threats** exist that could affect the property? (Such as potential erosion areas.)
5. On an overlay of the map, illustrate the permanent features such as the property boundary, waterways, bushland, structures and land types (the most productive soils to the least), and contours.
6. Use this information as a base. On another layer, sketch where you want features such as fences, productive paddocks, shelterbelts, woodlots, dams, troughs, lanes and gates. Rearranging fences according to land features can help you to use your land more efficiently. Work out where planting needs to go to achieve maximum effectiveness for windbreaks, erosion control and repair, shelter, salinity reduction, and to provide habitat for native birds and animals.



7. Write notes about:

- proposed land use
- planning for houses, sheds, stockyards, windbreaks, dams, roads and fence alignments
- methods to control and prevent weeds and pest animals
- methods to sustain or improve water quality for stock and downstream users
- methods to control stormwater movement and prevent erosion
- reducing bushfire hazard, conserving soil, preserving trees
- treating and disposing of effluent and rural rubbish
- legal and planning requirements
- methods to improve stock watering or alternative water sources for stock
- methods and timing for proposed revegetation of disturbed areas.

Use the information in this handbook to help you understand issues and best practices in these areas.

8. Use the map, your notes, and information in this handbook, to set goals and actions. Make a plan for how you can achieve these goals.

9. Prioritise your actions and then do them. Remember that certain activities (such as tree planting) should be timed to take into account seasonal conditions.

10. Constantly monitor, improve and reshape your goals as necessary along the way.

11. Make sure you regularly monitor and maintain the areas where you have worked to address any issues quickly.



More information

You can view and print property boundaries and air photo imagery from the NSW Government Spatial Information Exchange (SIX) maps website at www.six.nsw.gov.au.

You can also purchase or view aerial photographs of your property, contact NSW Land and Property Information at www.lpi.nsw.gov.au.

For more information about property planning, contact Local Land Services at www.lls.nsw.gov.au.

Further information about planning and managing your rural property can be found in the Property Management section of this handbook.

Case Study

John Weatherstone's account of managing his local property 'Lyndfield Park' is a good example of what successful property planning can achieve. Here is an extract from his book*:

Traditional farming practices have placed stress on the land limiting its ability to cope with environmental stress such as drought. We wanted to reduce the pressure we were placing on the land so that it would become more resilient to stress, while at the same time caring more for the assets of the farm upon which our enterprises were based: the soil, the nutrients it contained, the vegetation that held it in place and the native life that was part of its natural cycle.

Our major changes included:

- reducing the stocking rates to allow the land to heal following drought
- managing the level of grazing to increase soil organic matter
- initiating a tree planting program to protect both livestock and soils
- reducing the amount of cropping
- reducing the amount of cultivation during crop and pasture establishment
- retaining (i.e. not burning) crop stubble and finding ways to incorporate them back into the soil
- planting a diversity of trees and shrubs to encourage the return of as many native birds as possible
- reducing the use of toxic chemicals wherever practical
- continuing to treat existing erosion areas and prevent further erosion
- increasing the establishment and use of perennial pasture for better water use, soil protection and livestock productivity
- seeking ways to replace livestock income with income from trees and shrubs.

Not only did we believe that these steps would help make the farm a healthier place to work and live, we also hoped it would improve the long-term productivity of the property as well as increase its capital value. I may have looked like a 'greenie' to some people but at heart I was still a farmer looking to work the land.

The benefit of all our strategies over time, however, has been a significant lifting in the carrying capacity of the land. Indeed, our stocking rate is now nearly double what it was 20 years ago.

Advice from a local real estate agent is that the property, "...could realistically make 25–50 per cent more at auction", as a result of the tree planting and other Landcare changes we've undertaken. Although we didn't undertake our changes because we thought we could sell the property at a higher price, it is nice to know that our efforts to care for the land, to improve things for ourselves and our children, are also being rewarded through a substantial increase in capital value.

In these times when we all face many stresses, having a home and work environment that fosters a positive feeling of achievement and wellbeing, can be a worthwhile antidote in helping to counteract those stresses.

John Weatherstone, *Lyndfield Park – Looking back moving forward*, 2003



NATURAL RESOURCES

Water

Managing water is a vital part of successfully managing your property. Your aim is to use water efficiently to minimise costs and maximise water quality and quantity to benefit you, your property, and downstream users.

Water users are also subject to the provisions of the *Water Management Act 2000*, which aims to provide for the sustainable management of water for the benefit of both present and future generations.

Drinking water catchments and Water NSW

As a rural landholder you should be familiar with whether your property lies in the drinking water catchment. The following local government areas lie wholly or partially within the drinking water catchment of Sydney: Blue Mountains, Campbelltown, Cooma Monaro, Eurobodalla, Goulburn Mulwaree, Kiama, Lithgow, Oberon, Palerang, Shoalhaven, Sutherland, Upper Lachlan, Wollondilly, Wingecarribee, and Wollongong.

Water NSW (the merger of the Sydney Catchment Authority and State Water Corporation) manages raw water supply in Sydney's drinking water catchment and elsewhere across the State. In the Sydney drinking water catchment Water NSW manages a network of dams, storages and pipelines, which capture and transport the raw water for distribution to customers, such as Sydney Water and a number of local councils, who then provide drinking water to consumers.

More information about Sydney's drinking water catchment is available at www.waternsw.com.au

Water law

The Department of Primary Industries Water (DPI Water) manages surface and groundwater in NSW.

Unless a basic landholder right applies, landholders generally require a water licence or other approval from the DPI Water to access and extract water from surface or groundwater or to carry out certain activities that affect water quantity or flows.

NSW is currently operating under two pieces of legislation relevant to these licences and approvals:

- The *Water Management Act 2000* governs the granting of **new water licences** and the trade of shares in water access licences and water allocations where water sharing plans have commenced.

Water sharing plans establish rules for sharing water between the environmental needs of the river or aquifer and water users, and also between different types of water use such as town supply, rural domestic supply, stock watering, industry and irrigation.

This act also governs the granting of approvals at specific locations to:

- **construct and use a specified water supply work** (for example, a pump, bore, spearpoint or well) at a particular location
 - **use water for a particular purpose** (such as irrigation) at a particular location.
- **carry out a controlled activity** (such as erecting a building or other structure, river crossings, excavating or depositing material or carrying out activities that affect water quantity or flows) on waterfront land.
 - The *Water Act 1912* governs the issue of water licences in areas where water sharing plans have not commenced.

More information on water licences and approvals is available from DPI Water on 1800 353 104 or at www.water.nsw.gov.au/water-licensing.

Basic landholder rights

The *Water Management Act 2000* defines three types of basic landholder water rights in NSW:

- **Domestic and stock rights**

Owners or occupiers of land which is overlaying an aquifer or has a river, estuary or lake frontage can take water without a licence for domestic (household) purposes or to water stock.

Note that while owners and occupiers of landholdings do not need a water access licence to take water under a domestic and stock right, they still need to obtain a water supply work approval to construct a dam or a water bore.



■ Native title rights

Anyone who holds native title with respect to water, as determined under the *Commonwealth Native Title Act 1993*, can take and use water for a range of personal, domestic and non-commercial purposes.

■ Harvestable rights – dams

The harvestable right allows landholders to collect a proportion of the rainfall runoff on their property and store it in one or more farm dams up to a certain volume.

Water licences and approvals to construct a bore

Groundwater sources (also known as aquifers) can be accessed by different works such as a bore, well, spearpoint or excavation. An approval or a *Water Act 1912* licence must be held to construct any of these works.

If you are engaging a driller, you are responsible for ensuring that the bore is drilled by a person who holds a current NSW driller's licence. Additionally, the licence class must be appropriate for the type of drilling to be undertaken.

Farm dams and licensing

Several categories of farm dams do not require a licence. These include:

■ Harvestable right dams

Under a harvestable right (refer to information on basic landholder rights), landholders are allowed to collect a proportion of the rainfall runoff on their property and store it in one or more dams up to a certain volume. Harvestable rights dams cannot be constructed on third or higher order streams and must be constructed according to other requirements of the Harvestable Rights orders.

This means rural landholders can build farm dams that capture up to 10 per cent of the average regional rainfall run-off for their property without requiring a licence in the Central and Eastern Divisions and up to 100 per cent in the Western Division.

The total dam capacity allowed under the harvestable right for your property is the **Maximum Harvestable Right Dam Capacity**. To calculate your maximum harvestable right dam capacity go to the new improved calculator at www.water.nsw.gov.au/water-licensing/basic-water-rights/harvesting-runoff.

■ Dams built before 1999 used only for stock and domestic purposes

Farm dams (larger than the harvestable right capacity) built before 1999, when the harvestable right was introduced, do not require a licence provided they are only used for stock and domestic purposes. However, these dams are included when assessing your right to build additional harvestable right dams.

■ Dams up to one megalitre on small properties

Licences are not required for farm dams with a volume of up to one megalitre on lots in subdivisions where the subdivisions were approved by Councils before 1 January 1999, even if the maximum harvestable right dam capacity is less than one megalitre.

No further harvestable right dams may be constructed. Any new dams above this allowance must be licensed.

A water access licence and approval are usually required if you are building a new farm dam in excess of the maximum harvestable right dam capacity or the dam is located on a larger stream (third order or higher). Dams built on first or second order streams only need a licence if the streams are perennially flowing or if the dams are in excess of the maximum harvestable right dam capacity.

(Any watercourse that has no other watercourses flowing into it is classed as a first order watercourse. Where two first order watercourses join, the watercourse becomes a second order watercourse. When two or more second order watercourses join, they form a third order watercourse). A diagram to explain first, second and third order watercourses is available at the DPI Water website.

More details about farm dams are available from the DPI Water on 1800 353 104 or at www.water.nsw.gov.au/water-licensing.

Managing farm dams

Uncontrolled stock access can damage farm dams by polluting water with dung and urine, disturbing the soil, and damaging vegetation causing erosion and sedimentation. Pesticide and herbicide runoff can also affect water quality, as can the location of farm infrastructure such as roads and stock yards. Poor water quality can harm stock growth, lactation and reproduction.

Maintaining a healthy dam with clean water can improve the health of your animals, and increase the productivity and value of your land. However, this requires not just managing the farm dam but also its catchment. This includes the land, drainage lines and drainage depressions that carry water which flows into the dam. By managing the catchment area as a whole, the dam will be healthier and have flow on benefits for stock health and farm productivity.

Having well vegetated banks and preventing or limiting stock access through fencing is the best management practice for the immediate dam environment. The catchment areas should be well vegetated with 80 percent groundcover and 100 percent groundcover in drainage lines and depressions that flow into the dam. Pastures with deep-rooted perennial grasses help reduce soil loss, slow water runoff, and filter nutrients. This means that valuable topsoil and nutrients are retained and are not washed into the dam.

To keep your dams healthy:

- Wherever possible, use fencing to limit stock to one or two locations at the dam. Better still, fence stock out of dams, and use troughs to water them. This prevents stock from fouling the water and minimises erosion to maximise water quality and the longevity of the dam.
 - Encourage native plants to grow in the dam and along the water's edge – reeds, sedges and rushes at the water's edge and grasses and shrubs on the banks. Vegetation filters out sediments and nutrients. This will help minimise the chances of blue-green algae.
 - Avoid using fertilisers, herbicides and pesticides near dams and waterways.
 - Plant reeds and rushes around dam inflows to help filter out sediments and nutrients before they enter the dam.
- Limit stock access to and encourage grass to grow on the spillway to prevent erosion of this area as it is crucial for the long-term stability of the dam wall.
 - Don't plant trees along the dam wall as their roots may weaken it. Trees can also drop leaves in the water and release tannins that degrade water quality.
 - Plant native shade trees, but plant them away from dams so that stock do not rely on dam water to keep cool in summer.

More information

More information on how to manage farm dams is available in 'The Farm Dam Handbook' from Water NSW at www.waternsw.com.au or Local Land Services at www.lls.nsw.gov.au.

Riparian zones

The riparian zone is the area directly influenced by a river, creek, watercourse or drainage line. The zone generally extends from the normal water level to the floodplain.

Healthy riparian vegetation – native trees, shrubs and groundcovers – along waterways will make your creek banks more stable and help prevent erosion. The vegetation will also filter out nutrients from surrounding paddocks, and support and create habitat for native wildlife.

Native riparian vegetation is declining, leaving some stream and river banks vulnerable to erosion and weed infestation. This can affect your property. Where stock rely on streams and rivers to access water, disturbance to the soil and vegetation can be avoided by actions such as limiting stock access areas with fencing and pumping water to troughs.

Causes of riparian zone degradation include:

- recreational activities
- invasion and competition from pest species such as rabbits, and weed species such as willows and blackberries
- land management practices such as grazing and cropping
- erosion channel realignment.

One of the ways the DPI Water manages potential impacts from activities in riparian land is through controlled activity approvals. For more information, contact 1800 353 104 or refer to the section on approvals at www.water.nsw.gov.au/water-licensing

Effects of riparian zone degradation include:

- flow restriction
- weed invasion
- loss of soil
- reduced water quality
- changed direction of water flow
- reduced biodiversity, both aquatic and terrestrial flora and fauna
- reduced aesthetic value
- loss of windbreak and shelter
- unstable banks.

The potential outcomes of riparian zone degradation are flooding from blocked watercourses, loss of land and loss of productivity from weed invasion. There are also negative impacts for those relying on the water downstream such as polluted water from sediments.

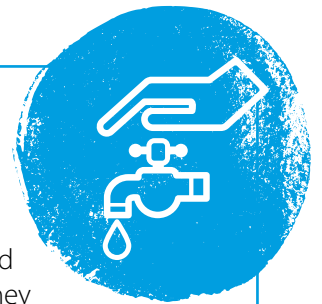
Some methods to control degradation and loss of riparian vegetation are the same as those outlined below for farm dams. Other methods include:

- Encouraging the growth of a native vegetation buffer along the riparian zone by fencing off watercourse banks and planting or seeding suitable native species.
- Reducing the number of tracks and trails leading to the riparian area by fencing.
- Reducing ground disturbance during weed removal activities in the riparian zone by restricting the use of machinery.
- Minimising herbicide and pesticide use in the riparian zone. Ensure that pesticides and herbicides are registered for use in these areas. The approved way of spraying watercourse vegetation is by boat from the water and spraying back toward the bank. Stem injection of tree species such as willow and privet reduces the possibility of chemical spills. Consult Council's Noxious Weed Ranger for information.

- Protecting riparian areas from stock by fencing and providing alternative water sources and shade areas.
- Revegetating degraded and eroded riparian areas with native vegetation or allowing large woody debris to build up within and across the bed and banks to reduce erosion.

You need approval to clear native vegetation in riparian zones. In urban areas contact your local Council and in rural areas contact your Local Land Services office. Clearing exotic trees within 20 metres of major streams and rivers may also require approval. The Office of Environment and Heritage is the consent authority to clear exotic or native vegetation on State protected riparian land.

Reducing household water use



Saving water in and around your home saves you money and helps the environment. There are many ways to use less water at home. People who live in rural areas have developed water saving methods through necessity and experience. Some methods require a development application consent if you are building a new house or commercial venture.

You can use the following tips to use less water in existing houses.

- Install dual flush toilets with a high star rating.
- Use water saving shower heads with a high star rating.
- Only use washing machines and dishwashers when full or if they can be adjusted for part loads.
- Buy water efficient washing machines and dishwashers with a high star rating.
- Ensure that there are no leaks in your plumbing system and repair any dripping taps promptly.
- Install water efficient taps and tap aerators.

Outside water use

Outside water use for gardens, lawn and stock for an average rural residential block (two hectares) can be 125,000–250,000 litres a year. Before you purchase stock, it is important to know how much water they will need, and to ensure that you have appropriate water sources in place so that your stock does not suffer from dehydration.

Stock requirements

If you are thinking of running stock on your property it is important to know how much water you have, its reliability, and how much water your stock will need to access.

The Department of Primary Industries provides a Prime Fact brochure on stock water, which includes information on the water requirement of various classes of stock. This information is available at: www.dpi.nsw.gov.au/agriculture/livestock/beef/feed/publications/stockwater-limited-resource.

Landholders need to be aware that these amounts may vary depending on factors such as the life stage of the animal, time of the year, moisture in the pasture, and water quality (animals drink more water if it is salty). For example, a lactating cow on grass may need up to 100 litres per day, three times the amount of beef cattle.



Garden requirements

Gardens can potentially use a lot of water. There are many ways to conserve water in the garden.

- Mulch gardens to a depth of 75 millimetres. However, be mindful of the increased fire risk of mulch close to your house.
- Compost household and garden waste and use it to improve soil fertility.
- Keep garden and lawn areas to a minimum.
- Consider allowing lawn to brown off in summer. However, this needs to be considered in association with your fire protection regime.
- Lawn kept at around five centimetres in height reduces evaporation as the blades shade each other.
- Plant drought tolerant species – use local natives where possible.
- When watering, improve the drought resistance of your plants by encouraging deep roots – to do this, water less often, but for longer periods at slow rates.
- Install a drip irrigation system.
- Install a rainwater tank.
- Use greywater in the garden. Greywater is wastewater from baths, showers, hand basins and the final rinse from washing machines. Do not use water from toilets or kitchen wastewater. Use greywater in a controlled manner to avoid adverse health impacts. For example, greywater should not be stored for more than 24 hours. Contact Council for guidelines on the use of greywater.

More information

For more information about water law, farm dams and licensing, contact DPI Water at www.water.nsw.gov.au.

For more information on saving water, contact Sydney Water at www.sydneywater.com.au.

For information and advice on funding available to landholders for river restoration work and on seeking approval to clear riparian vegetation, contact Local Land Services at www.lls.nsw.gov.au.

Soil

Your top soil is a valuable resource containing nutrients for your pastures, crops, and for the growth of native species. Soil erosion caused by wind and water can be exacerbated by animals, vehicles (including recreational vehicles) and vegetation removal. Erosion removes valuable top soil from your property. It reduces the productivity of your land, and pollutes creeks and dams with muddy water that is full of nutrients. The rate of erosion often far exceeds the rate of soil formation, creating a net loss of fertile soil over time.

The best protection against erosion is adequate groundcover vegetation. You want to aim for the maximum amount of groundcover for the longest periods of time. Perennial grass species such as native grasses often provide the most durable protection for your soil. Ideally, you want to aim for 80 percent groundcover and 100 percent groundcover in drainage depressions (flow lines) and in areas close to creeks.

Carefully consider the need for cultivation and pasture improvement that can permanently kill areas of native grasses. Selective herbicides can be used to control weeds and maintain grass cover. To best manage your soils, you need to consider the soil types and landscapes of your area, the types of grasses present, and the grazing management strategies you wish to employ.

Erosion

There are various forms of erosion including wind, sheet, rill, gully, stream bank and stream bed erosion. The main forms of erosion on your property are likely to be sheet and wind erosion, gully erosion and stream bed erosion.

Some soil types are very susceptible to erosion. Factors such as slope, rainfall intensity and natural groundcover influence natural erosion rates. Over-stocking or over-cultivating paddocks also leads to erosion.

You can help to minimise erosion and retain topsoil on your property by using the following good land management practices:

- Retain adequate vegetation cover, particularly at ground level. Ground vegetation should provide at least 80 percent groundcover.
- Rotate your activities to spell the land, and maintain continuous grass cover in grazing paddocks.
- Plant windbreaks and establish native plants along creeks and farm roads to help filter out sediment and nutrients.
- Protect and enhance existing native bushland. When choosing plants, consider species that are native to your area. It is worth joining the local Landcare, Bushcare or environment group to find out more local information about land management. Propagate plants from locally collected seed.
- Cultivate and plant along contour lines, not up and down slopes. Don't cultivate steeply sloping land.
- Construct access roads along the contour on gentle slopes wherever possible and avoid wet areas.
- Find out about your land capability. There are eight classes defined by the NSW Office of Environment and Heritage that outline the capability of the land to undertake particular activities. It is recommended that you don't plough land that is in Classes 5–8.

NATURAL RESOURCES

Land capability maps are available at www.environment.nsw.gov.au/soils.

You can also prevent soil loss and erosion by controlling water runoff with devices such as contour banks, sediment traps, flumes, straw bales and mulches.

It is important to obtain technical advice from the relevant authorities before constructing any works. There may be erosion control structures already on your property. If so, these structures should be maintained and not disturbed to ensure their continuing operation. For advice, contact Local Land Services at www.lls.nsw.gov.au or the Soil Conservation Service at www.scs.nsw.gov.au.

Soil acidity

Many of the soils in Sydney's drinking water catchments are highly weathered and naturally acidic, with a pH of less than 5.5. (The pH of soil is a measure of its relative acidity or alkalinity. Acid soil has a pH of less than 7.0.)

While different plants have different tolerances to acidity, most agricultural plants do best when the soil pH is between 5.0 and 6.5. However when the pH drops below 5.0, plants that are very sensitive to acidity, such as barley and lucerne, become adversely affected.

Some effects of soil acidity are:

- reduced agricultural viability and production rates
- increased production costs, such as the need to add lime to the soil
- groundcover decline, increasing the likelihood of erosion and declining water quality
- reduced water use by vegetation, contributing to increased dryland salinity.

Some causes of soil acidity include:

- natural pH decline through leaching
- past and present land use
- removal of alkaline plant and animal produce and waste products off site
- nitrate leaching – lack of deep rooted grasses to utilise the nitrogen before it leaches
- continuous or excessive application of ammonium fertilisers.

There are three basic strategies to manage acid soils:

1. Use deep-rooted perennial pastures to improve nitrogen recycling and slow the rate of acidification.
2. Use lime to raise soil pH (most useful if only the topsoil is acid).
3. Use plants that are tolerant of acid soil conditions.

It is important to get technical advice from the relevant authorities such as the NSW Department of Primary Industries or your Local Land Services office before treating your soil.

Dryland salinity

Dryland salinity is the build-up of salt in surface soil in non-irrigated areas, usually because of rising groundwater tables. Groundwater seeps to the surface, bringing salt with it. As the soil surface dries out, salt is left behind.

When the water balance is disturbed by the removal of deep-rooted perennial vegetation, dryland salinity is accelerated. Dryland salinity can cause vegetation loss and stream salinisation and can be a precursor to soil erosion.

Dryland salinity is a problem for farmers because salt makes it harder for plants to extract water from soil. The result is loss of pasture and groundcover, and eventually soil erosion, which affect the productivity and sustainability of your land.

In the last 40 years, the area in Sydney's drinking water catchments affected by dryland salinity has increased rapidly.

Some properties are particularly prone due to natural factors such as:

- rock/sediments containing high levels of salt
- salt in rainfall
- landform and hydrogeology characteristics.

Causes of dryland salinity in these areas include:

- removing deep-rooted perennial vegetation and replacing it with shallow rooted pastures and crops – this raises the water table, which brings salt to the surface
- blocking natural groundwater flow, such as by building roads, levees or dams.

Some effects of dryland salinity include:

- loss of desirable vegetation
- growth of salt-tolerant species
- reduced crop and pasture production
- water-logged soil
- soil erosion
- increased salt loads in rivers and streams
- reduced surface and groundwater quality
- declining soil structure
- damage to buildings, roads, septic tanks and pipes.

When considering methods to manage dryland salinity, it is important to get advice from the relevant authorities, such as your Local Land Services office or the NSW Department of Primary Industries.

Sodicity

Sodicity is a major cause of land degradation in the Sydney drinking water catchment. It is caused by high concentrations of sodium which is generally attached to clay particles of the soil. As a result, clay particles in the soil lose their tendency to stick together when wet. This leads to unstable soils that may erode or become impermeable to water and plant roots. Local landholders sometimes use the terms 'spewy' or 'wormy' to describe sodic soils.

Signs of sodic soil are poor water infiltration, surface crusting, waterlogging, collapsing areas which appear to result from underground tunnelling and piping, and cloudy water in dams and creeks that never settles out.

Sodicity is most common in the subsoil. Soil structural problems from sodicity increase when soil organic matter is low. Having a good ground cover helps stabilise the topsoil and retain its organic matter content. In this way, the risk of sodic subsoils becoming exposed to run-off and erosion is reduced.

Applying gypsum (calcium sulfate) to the affected soil can treat sodicity of topsoil. You may need large quantities of gypsum to have more than a short-term affect. The best way to treat sodic subsoil is to stop the subsoil from being exposed.

Before treating your soil, it is important to get advice from the relevant authorities, such as your Local Land Services office or the NSW Department of Primary Industries.

More information

For more information on the funding available to landholders for erosion control work, contact your Local Land Services office at www.lls.nsw.gov.au

For more information on soil management, contact the NSW Department of Primary Industries at www.dpi.nsw.gov.au, the Soil Conservation Service at www.scs.nsw.gov.au and the NSW Office of Environment and Heritage at www.environment.nsw.gov.au.

The NSW Department of Primary Industries also conducts a workshop series LANDSCAN (Landscape and Soil Test Interpretation for Sustainable Farm Management) on how to understand soil tests, landscape limitations, soil fertility, acidity, salinity, and to match livestock and animal husbandry to landscape classes.

Native plants and animals

Remnant native vegetation

Remnant native vegetation is the area's remaining indigenous vegetation, including forests, woodlands and native grasslands. During the past two centuries, much of the original native vegetation in the local area was cleared for agriculture. In some cases, this has resulted in problems such as soil erosion, loss of soil structure, weed invasion, salinity, reduced water quality, and loss of biodiversity.

Native vegetation can enhance the value of your farm and increase productivity by stabilising soils to reduce erosion and providing shade and shelter for stock, windbreaks for crops and pasture, and a habitat for native wildlife. Thick strips of native trees and shrubs can also improve the survival of lambs and ewes, protect against drying winds, moderate temperature extremes, prevent pollution of streams by nutrient runoff, and provide effective barriers against windblown weed seeds such as those of serrated tussock.

Remnant vegetation can protect an area from rising water tables and salinity, and provide a home for native animals, including threatened species. Native trees, shrubs and most native grasses are deep-rooted perennials that keep saline groundwater well below the surface. They provide a source of seed for revegetation and offer a landscape that is pleasing to many people.

Your rural block may still be entirely forested or still have areas of remnant woodland or forest, isolated paddock trees and native grasslands. This vegetation should be left intact as it may be part of a vegetation community that is now extensively cleared, and be part of a corridor connecting two larger areas of native vegetation. It may be also holding the soil together preventing erosion and the potential sedimentation of your farm dams and waterways.

Re-establishing native vegetation helps to restore and link remnant patches of native vegetation on private and public lands, enhancing their value as wildlife corridors and biological reserves. Fence the remnants to protect them from livestock grazing.

Set aside a section or sections of your property for native plant regeneration. Assisted natural regeneration is the most cost-effective and successful way of re-establishing native vegetation.

When planning a re-planting program, always try to:

- use seed that is sourced locally wherever possible
- use plants that have been grown locally to ensure they acclimatise to local conditions
- choose species that reflect the vegetation community or communities at the site.

The main options for revegetation are:

- encouraging natural regeneration
- planting seedlings
- direct seeding.

Join your local Landcare group, or if there isn't one talk to your neighbours about forming one to tackle vegetation and soil management issues.

How good is that piece of bush?

As a rule of thumb any patch of native vegetation is valuable. Across a rural property or farm, aim for at least 30 percent cover of native vegetation to improve productivity and maintain ecosystems. Together with your neighbour's bushland, you may be able to create or maintain a corridor of vegetation for native animals, including threatened species.

Trees and shrubs make the greatest visual impact on the landscape however most native plant diversity is in the groundcover layer. All three layers play an important role in providing habitat for our fauna and insects. Spring is the best time to appreciate the diversity of native wildflowers that may be less visible for much of the year.

Remember to:

- Avoid fragmenting existing areas of native vegetation, including remnant grasslands. If you are building new fences, roads or services, build them around areas of native vegetation rather than through them.
- Ensure that plant species are correctly identified when spraying weeds (many native grasses such as *Poa* species are easily confused with noxious weeds such as *Serrated Tussock*).

What laws apply to native vegetation?

Remnant native vegetation is protected by the *Native Vegetation Act 2003*. The legislation balances the needs of farmers and the environment, and is responsive to local conditions. The Act's regulations put an end to clearing native vegetation unless the overall effect is to improve or maintain the environment.

Rural landholders need to be aware of the following:

- Regrowth (other than protected regrowth) that has grown since 1990 can be cleared without approval.
- Landholders may have a range of routine agricultural management activities (RAMAs) under which you can clear without approval. You may only undertake clearing associated with the RAMAs to the minimum extent or within prescribed limits for carrying out the activity.
- Most other clearing on land covered by the Act needs assessment and approval through a property vegetation plan (PVP) process.
- Subdivision of land will also require Council consent and so any clearing associated with the subdivision will also have to be approved by Council.

The *Native Vegetation Act 2003* does not apply to land zoned as urban or industrial. Clearing vegetation in rural and urban areas may also require Council approval.

Once landholders have been issued with a property vegetation plan, you will not need to obtain further threatened species approvals for activities you want to undertake on your land, as long as the activity is in keeping with the specifications of the property vegetation plan. Contact your Local Land Services office before clearing any native vegetation to determine what approvals may be required.

The NSW Government is proposing significant changes to native vegetation laws anticipated to come into effect in 2017. This rural living handbook will be updated when the changes occur. Before relying on information contained in this section please contact your Local Land Services office.

Native animals

The enjoyment of Australian native animals is one of the many reasons for moving to a rural area. Some rural residents are so keen to protect wildlife and to provide them a safe environment that they enter into conservation agreements with various government and non-government organisations.

All native animals in NSW are protected under the *National Parks and Wildlife Act 1974*. This means that it is illegal to trap, kill or harm them unless licensed to do otherwise. The goal is to live in harmony with native animals, however sometimes they can pose a threat to our safety or activities. It is important to understand how to manage these situations on your property.

A few native animals can cause problems if not managed appropriately. For instance, swamp wallabies can often show a strong liking for garden plants. In rural areas it is wise to fence off prized plants, such as roses and vegetables.

Brush-tail possums can sometimes get into roofs. In such cases, it is best to provide nest boxes for the possums away from the house, remove them from the roof and seal possible entrance holes. Possums are strongly territorial. Removing them from your property can result in death of the possum and injury to others. In any case, new possums may take their place.

NATURAL RESOURCES

Several species of venomous snake may live in your area. Most snake bites recorded in NSW happen to people who try to catch or kill them. Give snakes some space and they will generally leave the area.

The snake season usually lasts from about late October to late April. The following actions can reduce the chance of snake bite:

- Remove loose sheets of tin and other cover from around the house.
- Mow around buildings and other frequently trafficked areas.
- Wear enclosed leather shoes when walking in long grass or near creeks or farm dams.
- Do not walk outside in thongs or bare feet on warm nights.
- Let snakes pass through and away from your house or paddock, but if they decide to take up residence call WIRES (NSW Wildlife Information and Rescue Service) on 1300 094 737 or Wildlife Rescue South Coast on 0418 427 214 to have them relocated.
- Avoid taking dogs for walks near long grass or rivers in the warmer months when snakes are likely to be breeding.



Providing a native animal friendly farm

If you would like to encourage small birds and other wildlife, such as sugar gliders, around your home there are some ways to attract them:

- Leave large trees with hollows intact.
- Plant a variety of local native shrubs, especially dense or prickly ones. Use mainly white, pink or yellow flowering shrubs and keep red flowering shrubs in smaller numbers. Large numbers of red flowering shrubs can attract Common Myna, Noisy Miner birds and larger honeyeaters that actively exclude other smaller birds from the area.
- Provide bird baths and other watering points.
- Build and maintain nest boxes where few hollow trees remain. Monitor the nest boxes to ensure they are not being taken up by pest species such as the Common or Indian Myna
- Leave fallen timber and hollow logs where fire is not a major threat.
- Keep a belt of feathery wattles to connect bushland areas. These have major habitat and food value for small birds and sugar gliders.
- Do not remove mistletoes – they are an excellent source of food and habitat for a range of animals.

Feeding native birds can be an issue as it may make birds dependent on the local resident. If you decide that you would like to feed the native birds, it should only be as a supplement in small quantities. Better still, provide food plant species in strategic viewing spots that seasonally provide food.

Frogs are desirable animals to have living on your property. The following actions will encourage frogs to stay or colonise your property:

- Use ponds or pools as part of your garden landscaping.
- Place large rocks or boulders around one end of a dam for shelter and over-wintering.
- Put logs or other large section offcuts around the edge of a few dams with half in the water and half out.

- Plant some emergent vegetation like *Eleocharis*, *Juncus*, *Baumea* or *Cyperus* species in clumps around a section of a dam's margins (*Typha*, while attracting frogs, may cause problems around the dam and is less suitable).
- Plant tussock-forming vegetation like *Lomandra* or *Gahnia* species at a short distance from the dam for sheltering and foraging.

Fish and other aquatic animals can be a desirable addition to rural living. If you are going to stock farm dams with fish, you need to carefully consider the following:

- Only native fish from the catchment area are generally permitted to be released. Depending on numbers and site specifics, you may need a permit from the NSW Department of Primary Industries – Fisheries.
- If your dam or pond is already infested with the introduced pest Plague Minnow (*Gambusia*/ Mosquito fish) then it would be best to eradicate it. Contact the NSW Department of Primary Industries – Fisheries for assistance.
- Yabbies might be another desirable addition but can out-compete native crayfish, and this is particularly important in the Wildes Meadow Creek area. Suppliers or the NSW Department of Primary Industries – Fisheries can provide more information.
- Be aware that tortoises and platypus may be local residents and that yabbie traps are illegal in eastern flowing streams as they may drown these air breathing animals.
- Eels and aquatic insect life such as dragonflies and backswimmers will colonise on their own if a healthy pond, dam or creek system is established and maintained.
- Consider adding round river stones that attract aquatic life by creating riffles during flow periods and a variety of habitat values.

A pond, dam or creek full of life not only creates a healthy environment but may provide many peaceful hours for you and your family as you explore this fascinating environment and the animals seasonally attracted to it.

Contact WIRES on 1300 094 737 or Wildlife Rescue South Coast on 0418 427 214 if you find sick or injured wildlife on your property.

What laws apply to native animals?

The *Threatened Species Conservation Act 1995* aims to prevent the extinction and promote the recovery of threatened species, populations and ecological communities in NSW. Damaging or harming threatened native plants, animals and ecological communities, even on private property, is illegal.

If you are considering land clearing, subdivisions or other actions that may affect threatened species, you may require local Council approval, or, if not, approval from the NSW Office of Environment and Heritage and Local Land Services.

Threatened species may not be obvious to you on your property. If you are considering developing your property or land clearing, you may need to have a threatened species survey and an impact assessment.

More information

For more information on Landcare, funding available to protect and enhance remnant native vegetation, revegetation advice, and free site inspections by native vegetation professionals to help design a vegetation management program, contact your Local Land Services office at www.lls.nsw.gov.au.

Council can also assist through the **Land for Wildlife** program. See the local information section of this handbook for more information.

For more information on the *Native Vegetation Act 2003* and regulations, including the routine agricultural management activities applicable to your area, contact your Local Land Services office at www.lls.nsw.gov.au or the NSW Office of Environment and Heritage at www.environment.nsw.gov.au/vegetation.

More information about threatened species is available from the NSW Office of Environment and Heritage at www.environment.nsw.gov.au/threatenedspecies.

Firewood Collection

Residents of the Southern Highlands enjoy using wood fires to heat their homes and also occasionally for water heating and cooking. But tree hollows, logs and standing dead trees are also essential habitat and nesting sites for many native animals we share our properties with.

The impact of firewood collection on native animals has become such a major issue that the loss of hollow-bearing trees and removal of dead wood and dead trees has now been listed by the NSW Government as a **key threatening process** which is making more native animals endangered and possibly face extinction.

Sourcing your firewood in a way which is both legal and sustainable is an important consideration for landholders.



Sustainable firewood collection

Remnant native vegetation, mature trees with hollows and fallen timber should be retained wherever possible as many of our native fauna need hollows to survive and reproduce. Only the minimum timber necessary should be collected for firewood.

A few simple changes can make firewood collection more sustainable:

- Leave any established hollow logs on your property.
- Don't remove all the wood from an area - leave some behind to remain as habitat.
- Avoid removing trees with hollows.
- Use smaller pieces of timber which are less likely to be used by native animals in the future.
- Plant trees on your property to replace wood removed.

In the longer term, improvements to household energy efficiency and alternative sources of clean energy such as solar and wind should be considered.

Where can you legally collect firewood?

■ Your Property

Collection of firewood for non-commercial (personal consumption) purposes does not require approval.

However, you do require a permit from Council to fell live or dead trees on your property unless an exemption applies.

See www.wsc.nsw.gov.au/tree-preservation-controls for more information.

Harvesting of firewood commercially from your property requires a private native forestry property vegetation plan (PNF PVP).

See www.epa.nsw.gov.au/pnf/ for more information.

■ Council reserves and roadsides

Firewood collection is prohibited in these areas.

Vegetation within roadside corridors and bush land reserves, including dead or fallen timber, provides habitat and as such, are protected. Council takes great pride in conserving the native vegetation and habitats that make up roadside and bush land reserves across the shire. Council issues fines for collecting wood or other materials or cutting down or damaging trees in these areas.

■ National Parks, State Conservation Areas and Nature Reserves

Firewood collection is prohibited.

■ State forests

A permit is required.

See www.forestrycorporation.com.au/business/permits.

■ Crown land

A licence is required.

Contact Department of Industry (Lands) on 1300 886235.

Alternative sources of firewood

Firewood can be purchased from commercial harvesters and this may be more sustainable than harvesting from your native woodland or forest remnant. If you purchase wood from a supplier, ask them about the sustainability of their firewood. If you have the space, wood lots can be planned and planted specifically for your long-term timber harvesting needs.

Sources of timber should be prioritised. Consider starting with old (untreated) fence posts that are no longer needed, dangerous trees that need to be removed and then other suitable, preferably poorer quality, younger trees without hollows.

A mix of hardwood and softwoods can be used in wood heaters, as long as they have been left to dry for the required time. Split wood can take two years to dry properly, so sources need to be considered well in advance.

Wood smoke pollution

Wood smoke is a form of air pollution which can cause health problems. For more information about wood smoke and Council's Wood Smoke Reduction Program, see page 45 of the handbook.

WSC acknowledges Bathurst Regional Council for material used in this section.

Fire

Fire is a part of the Australian landscape, and bushfire management in NSW is a cooperative effort by the whole community. Not only does bushfire pose a risk to personal safety and property, it can also have major impacts on biodiversity and water quality.

Effective bushfire management involves fire authorities, landowners, land managers and planning authorities, Council and the local community. The work you do to prepare your own property is a critical part of bushfire management.

Bushfire management involves a risk planning process. You will need to:

- identify the location of bushfire hazards (such as high fuel loads)
- identify the location of assets (buildings and environmental)
- assess the hazard as a threat to identified assets.

As well as consulting publications from the Rural Fire Service, you should also consider joining the local rural fire brigade.

While most older farmhouses are built on cleared farmland there has been an increasing tendency to build on bush blocks, on land which is often too rugged for agricultural use. Probably the most important issue for a house on a bush block is to create an asset protection zone that breaks the continuous canopy of trees. This will probably mean removing some trees and reducing fuel loads of dry undergrowth and dead branches. This should be done with guidance from the local Rural Fire Service.

Since 2002, legal standards have been in place for the safe construction of buildings in bushfire prone areas of NSW.

Building standards in bushfire prone areas include:

- adequate setbacks from bushland
- reduced fuel areas (asset protection zones)
- correct siting
- building construction standards
- good access roads for fire fighters and residents.

Strategically planned asset protection zones and regular maintenance to remove fuel greatly enhances the ability of your home to be protected in an emergency.

Wherever possible, new houses and sheds should be located in existing cleared areas to reduce the amount of clearing required for construction.

If you have stock, you should intensively graze pasture near your home during late spring and early summer to reduce fuel levels. Check with the Rural Fire Service.

Land clearing in NSW that is for bushfire hazard reduction and not agricultural purpose will usually require a Bushfire Hazard Reduction Certificate. This certificate is for activities such as burning, land clearing and slashing. The Rural Fire Service must also be notified depending on the season.

The Rural Fire Service makes these suggestions for fire protection measures around your home:

- Clear leaf litter from gutters.
- Firmly fix the roofing so there is less chance for hot embers to enter roof space.
- Install screens or shutters and enclose areas under the floor, if possible.
- Ensure vents into the roof space are screened with fine wire mesh.

- Remove all flammable items from around the house, including wood piles and obvious flammable materials such as paper, boxes, crates, hanging baskets and wooden garden furniture.
- Direct the relief valves on LPG tanks away from the house.
- Buy a portable pump to use water from dams and swimming pools.
- Fit a gate valve to water tanks – a 38-millimetre Storz coupling will assist the Rural Fire Service.
- Consider reserving water supplies from tanks, dams or swimming pools as mains water will be in high demand during bushfire.
- Write the emergency 000 telephone number next to the telephone.

The following actions in your garden can also help to protect your property:

- Clear away ground fuels around the house (remove long, dry grass, dead leaves and branches, thick undergrowth) with appropriate certification and notification.
- Take a trip to the tip with garden and general rubbish that could catch fire.
- Prune low tree branches two metres from the ground and separate tree crowns.
- Prepare firebreaks (a well-watered lawn can act as a firebreak).
- Ensure vegetation around the house does not provide a path for fire – plant or clear vegetation in clumps, rather than continuous rows.



The Rural Fire Service website has a map tool to help identify high bush fire prone areas of your property and has information on the following subjects to help you prepare for a bushfire:

- Family fire plan
- Protecting your house and garden
- Water supplies and equipment
- Preparing your property – farms and landholders
- Bushfire hazard reduction certificates
- Safe burning practices
- How the RFS can help
- How you can help.

More information

For more information on preparing for and responding to bushfires in rural areas, contact the Rural Fire Service at www.rfs.nsw.gov.au or the NSW Department of Primary Industries at www.dpi.nsw.gov.au.



Weeds

A weed is a plant growing in the wrong place. Plants are weeds if they harm the environment, choke out native vegetation, or harm agricultural production. Weeds often have a high level of seed production with easy dispersal and are highly competitive with a lack of natural controls.

Weeds can occur on land and in water. Some aquatic weeds reduce water quality by blanketing the entire surface of farm dams, or by blocking or reducing water inflows. On rural properties, it is important to check not only pastures, but also farm dams and waterways for weeds.

Weeds can be a major problem on rural land because of the impact they have on pastures, crops and stock. The importance of managing weeds in pastures is recognised across the catchments as an important way to improve land productivity and sustainability.



Weeds are generally a sign of pasture in decline and land degradation, not the cause. Determining the cause of pasture decline and taking action early is the best way to prevent further loss of desirable species and minimise weed invasion.

Weeds can be spread by:

- seed brought for sowing, stock feed, on stock, machinery, water, wind and garden escapees
- deliberate introduction, such as willows planted for bank stabilisation
- lack of awareness or ability to identify weeds
- poor land management, such as overgrazing and undergrazing
- herbicide resistance due to over-reliance on certain chemicals.

Landowners need to control declared noxious weeds on their property. Noxious weeds have been declared so by the NSW Department of Primary Industries (DPI) and have a detrimental effect on the environment and production.

Council is the local weed control authority and has a Noxious Weed Ranger who has the right to enter and inspect private properties and, if required, issue notices to carry out weed control work. Fines may also be applied.

You can apply to Council to see if there are any outstanding weed notices on a property before buying.

The aim of weed control is to remove the weed, deplete the weed seed reservoir, and prevent further replenishment of the seed store. You can control weed seed by stopping the weed from growing and removing vegetative plant parts including roots, stems, branches, stolons, tubers or other plant parts that may allow the plant to grow.

Most weeds were introduced from other countries – some arrived by accident while others were brought for various reasons. The natural enemies that kept the plants in control in their native countries are not present in Australia, and their spread has not been restricted by these natural means.

Some effects of poor weed management are:

- loss of native species and their habitat
- reduced land productivity
- increased control costs as weeds spread
- soil degradation and erosion.

Herbicides have added a new dimension to weed control. Herbicides are often an important part of an integrated plan to control weeds – not the sole control technique. An integrated approach to weed management may include strategic grazing, pasture improvement, herbicides, biological control agents, cultivation, slashing, mulching and hand pulling.

More information

For advice on how to manage weeds, contact the Noxious Weeds Ranger at Council.

Information and weed control, training on pasture weed identification, and a noxious weed list for the local area is available from the NSW Department of Primary Industries at www.dpi.nsw.gov.au.



Pest animals

Pest animals and insects can cause serious economic losses to agricultural production on your property. Pest animals may present an unacceptable risk of exotic disease, threaten the survival of many native species, and cause environmental degradation including erosion.

Landholders have a legal responsibility to control and eradicate noxious pest animals on land they own, occupy or manage.

Pests such as wild dogs, rabbits, feral pigs, foxes, feral cats and feral goats can introduce disease and out-compete native animals for food and shelter, as well as injuring or killing livestock and damaging crops and pastures.



Your Local Land Services office can provide advice and help you to eradicate declared pest species from your property by providing poisoned baits, hiring equipment such as traps, and initiating education programs. They also work with private and government stakeholders to develop vertebrate pest management plans and co-operative management programs.

Current species declared as noxious pests in NSW include rabbits, feral pigs, wild dogs and a number of locust species. You have a legal obligation to control these pests. Foxes and mice are presently classed as nuisance animals in NSW and you are not obliged to control these species, although Local Land Services can provide advice and/or help to control them if required.

Contact your nearest Local Land Services office if there is any evidence of wild dog attacks on stock on your property or to report sightings of pest species.

Domestic dogs and cats

Domestic dogs and cats can also harm the environment and disrupt farming practices. Dogs and cats kill and maim many native animals, and dogs may injure or kill livestock. To reduce this risk, keep dogs chained up or within a secure yard

You have a legal responsibility to ensure that your dogs and cats are prevented from escaping your property and causing stock losses.

You must register dogs and cats through Council. Unwanted animals should not be dumped in the bush, but should be taken to the Royal Society for the Prevention of Cruelty to Animals (RSPCA) or your veterinarian.

Pets and other stock must be kept within your property boundaries. Wandering animals can cause conflict with neighbours and you are liable for any damage or stock losses they may cause. In public areas, dogs and cats must be kept on a leash. Bury dead animals promptly and away from watercourses so that they do not cause pollution.

More information

For more information about the control of pest animals, contact Local Land Services at www.lls.nsw.gov.au.

Local Land Services

Local Land Services was established in January 2014 and brings together agricultural production advice, biosecurity, natural resource management and emergency management into a single organisation. It incorporates services previously provided by Livestock Health and Pest Authority (LHPA), and catchment management authorities, as well as other services such as agricultural extension from NSW Department of Primary Industries.

Local Land Services delivers services to farmers, landholders and the community in 11 regions across rural and regional NSW. Each region employs local people such as vets, rangers, livestock, agronomy and natural resource management advisors, and focuses on local issues and delivery of quality services in your region.

Local Land Services levies rates on some rural holdings, to help pay for its services – in the same way local councils levy rates on residents. Local Land Services rate notices are sent to rural landholders of 10 or more hectares or those having an assessed carrying capacity upon the holding of 50 DSE (dry sheep equivalent) or more every year.

More information

For more information about your region, contact Council and check the Local Information section of this handbook.

Locate your Local Land Services office at www.lls.nsw.gov.au



Notes

Dotted lines for taking notes.



PROPERTY MANAGEMENT

Waste management

It is important to dispose of waste in an environmentally sustainable way. Dumping waste in eroded gullies is not acceptable. Rural properties produce a wide range and significant amount of waste and its successful and environmentally-friendly disposal requires good management.

Rural waste typically includes domestic waste, solid waste such as wire and old white goods, farm chemicals and dead stock.

Domestic waste

Details about local domestic waste removal arrangements are in the Local Information section on page 67 of this handbook.

Composting

Almost half of our domestic waste consists of kitchen and garden waste. Most of this material can be composted. Composting returns nutrients to the soil that would otherwise be lost, improves soil structure, and increases the water holding capacity of the soil.

Composting is nature's recycling program. In time, organisms will break down the waste into a rich, dark, crumbly compost that is nature's own nutrient rich fertiliser.

Home composting generally takes two months or more. The more you turn and mix the contents, adding air in the process, the more rapidly the composting action will happen. The compost can then be added to the garden to increase productivity.

What can be composted?

- 'Greens' including grass cuttings, non-woody garden prunings, weeds that have not gone to seed, leaves, flowers and vegetable remains, kitchen wastes (including egg shells and bread), herbivore animal manure – horse, chicken and cow (avoid other animal droppings).
- 'Browns' including paper and cardboard, wood fire ash, sawdust and wood shavings, vacuum dust and hair.

You can make compost either in a heap or a bin, depending on quantity. Minimum dimensions for a heap are one metre by one metre by one metre. You can enclose the heap using bricks, timber or metal, such as corrugated iron. Cover with a lid or piece of carpet to retain heat and provide protection from rain.

A compost bin is better for small gardens. Your compost heap or bin should be placed in contact with the soil to allow worms and decomposing insects and micro-organisms to enter the compost.

Recycling and reuse

Contact Council for details of recycling services. You can recycle a large number of materials for free at Council's Resource Recovery Centre, including:

- paper and cardboard
- plastic bottles (types 1, 2, 3, 4 and 5)
- steel cans (including aerosol cans and paint tins)
- aluminium cans and foil
- glass jars and bottles
- juice and milk cartons
- soft plastics
- paints
- gas bottles and fire extinguishers
- batteries
- mobile phones
- printer cartridges
- polystyrene packing foam
- TV's and computers
- fluorescent globe

Constructive ideas for living with less waste include:



- Collect all liquid waste in your kitchen as well as your food scraps. Your compost 'soup' will provide some of the water necessary for the composting process. Rain will provide further water, so take the cover off your compost bin while it's raining. If you have a compost heap you may need to cover it during heavy rain to prevent it from being flooded.
- Be creative with juices and fruits and reduce your dependence on store bought alternatives.
- Much household waste begins at the shop. There has been a lot of promotion about taking your own carry bags to the shops. Now it's time to ask yourself 'what's in the bag'? Become a conscious consumer and only buy what you need.
- Repair and reuse items.
- Clean out your cupboards and gather all those things still in working condition that you no longer want or need. Take them to a local charity.
- Collect tea bags and coffee grains at work in a sealable plastic container and take them home to your compost heap. Share this resource (and the responsibility for collecting it) with your work colleagues.
- Replace plastic/foil-wrapped sweets with fruit. It's healthier and the waste can go into the compost.
- If you have enough yard space, keep chickens to eat food scraps and produce fresh eggs.
- Spend less time in the shower. Being conscious of the time will help you to save water, energy and money.
- Save coloured paper or children's drawings throughout the year and use them to wrap presents.
- Give your compost a read by putting food-soiled newspapers into the compost.

Landfill

A landfill site should be the last resort for waste disposal on rural properties. Waste management facilities such as the Resource Recovery Centre should be used wherever possible. If you think a landfill site is appropriate or the only option, seek advice from Council or the NSW Office of Environment and Heritage.

See pages 42-44 of this handbook for more detailed information on managing agricultural and veterinary Chemical waste.

Burning

Burning waste, such as household rubbish and garden clippings, causes air pollution. Measures have been introduced over time, through the Protection of the Environment Operations (Control of Burning) Regulation 2000, to control backyard burning and other open air burning.

The laws are different for burning for fire hazard reduction and burning for the disposal of waste.

Burning of garden waste is prohibited in and around towns in many areas. Burning household waste is also prohibited in most areas where a garbage service is available.

During the bushfire danger period, generally from October to March, burning is prohibited without a permit from the Rural Fire Service. You must carry out any burning in a way that prevents or minimises air pollution and there are some materials, for example tyres and painted timber, that are not allowed to be burned.

For more information on backyard burning in urban and rural areas, see Council's website www.wsc.nsw.gov.au/backyard-burning



Dead stock disposal

If the cause of death of an agricultural livestock animal is unknown, your Local Land Services office may be able to help diagnose the carcass if you make contact in a reasonable timeframe.

Whether one or more animals are to be disposed of, disposing of dead stock carries the risk of polluting watercourses, producing odours, spreading disease and interfering with community amenity.

If possible, carcasses should be used or rendered. If the animals are to be slaughtered, local abattoirs and knackeries should be contacted to find out the cost of getting them to do the work.

If you have to dispose of carcasses on the farm it is important to do the job quickly and thoroughly. Burning is rarely satisfactory – burying is better. However, with certain exotic diseases burning may be mandatory. Contact your Local Land Services office if you are unsure what to do.

To reduce swelling during decomposition the abdomens and paunches of the carcasses should be opened to allow gases to escape. The carcasses should be sprayed with sump oil if immediate burial or burning is impractical. They should be heaped up in a secluded spot away from watercourses and sump oil should be spread liberally over the heap. The oil discourages flies and scavengers. The heap can then be buried or burned later.

More information

For information about the recommended method to dispose of dead stock, and details of the Protection of the Environment Operations (Control of Burning) Regulation 2000 and the *Rural Fires Act 1997*, contact the NSW Environment Protection Authority at www.epa.nsw.gov.au.

Information about animal health services provided by Local Land Services is available at www.lls.nsw.gov.au.

For advice about waste management on your property, contact Council or visit www.waste.wsc.nsw.gov.au.

Effluent management

Effluent is wastewater generated from the bathroom, toilet, kitchen and laundry. Many houses in rural areas are not connected to a sewage treatment plant and rely on onsite systems to treat wastewater (all the water used in your home) and then safely dispose of the effluent (treated wastewater) onto your property, without endangering the health of you and your neighbours, or harming animals or the environment.

Failing or inappropriately designed and constructed onsite wastewater management systems release dangerous levels of sewage pollution to the environment. Sewage pollution can contaminate water, spread disease, and harm the environment. There are approximately 300,000 onsite wastewater systems across NSW, and about 15,000 in Sydney's drinking water catchment. There are approximately 5000 systems within Wingecarribee Shire. The cumulative impact of effluent from poorly maintained or inappropriately designed systems can be a significant problem. Sewage pollution is evident in different areas across the state, often near waterways and in drinking water catchments.

There are different types of onsite treatment and disposal systems. Septic tanks (with associated trenches) are still the most common type of treatment system, however they are increasingly being replaced by more advanced technologies including biological filter systems and aerated wastewater treatment systems. Effluent applied to a land area may be utilised (through irrigation) or disposed of (through soil absorption), depending on the type and level of treatment and effluent application system used.

Ensuring you have the right type of onsite wastewater system for your household size and land features is critical to protecting water quality in the drinking water catchment.

With advances in the performance of onsite wastewater systems, there is no reason for the community to accept failing systems. Research shows that many people don't know how to manage their systems and around 70 percent of systems fail to meet environmental and health protection standards.

Landholder responsibilities

The NSW Government has introduced local government reforms and guidelines for efficient management of onsite wastewater systems.

Regulations under the *Local Government Act 1993* specify performance standards and require councils to supervise the operation of onsite wastewater systems.

Under the Local Government (General) Regulation 2005, if you have an onsite wastewater system, in addition to gaining approval to install a system you must also obtain Council approval to operate. An approval to operate is a similar process to obtaining a pink slip each time you register your car. An approval to operate lasts for two to five years depending on the level of risk associated with a system. You must maintain and manage the system in accordance with health and environmental performance standards. A well maintained system can also reduce costly works needed by landholders to fix faulty systems or in extreme cases replace the entire system.



The performance standards are necessary to:

- prevent the spread of disease by micro-organisms
- discourage insects and vermin
- prevent sewage contamination of waterways and groundwater
- prevent degradation of soil and vegetation
- prevent the spread of foul odours
- minimise adverse impacts on neighbours and the amenity of the land
- ensure good water conservation practice and appropriate re-use of natural resources (including nutrients, organic matter and water).

To support these performance standards landholders must ensure that:

- people do not come into contact with sewage or effluent (whether treated or not) in their ordinary activities on the premises concerned
- effluent is not discharged into any watercourse or onto any land other than a designated effluent application area
- effluent management areas are not used for recreational purposes, and may need to be fenced-off or sign posted
- vehicles and stock are prevented from entering effluent management areas
- whatever system of effluent management is used, it is well maintained and operated in a sanitary condition

- your tank should be desludged or pumped out every three to five years by an approved contractor. Grease-traps should also be cleaned regularly
- landholders with aerated wastewater treatment systems (AWTS) engage the services of a technician on a quarterly basis to inspect their system and submit a report to Council
- relevant information is provided to the Council when requested
- you have lodged an application for approval to operate, and paid the scheduled fee for registration and assessment costs.

Government responsibilities

Under the *Local Government Act 1993*, councils are required to manage the cumulative impacts of sewage pollution in their local government area, which includes approving the installation and regulating the operation of onsite wastewater systems.

Councils may determine the most appropriate sewage management strategy for local circumstances, and will determine the level of supervision of onsite systems to accommodate variations between high, medium and low risk areas. Councils have been encouraged to develop onsite sewage management strategies in consultation with the community, which will include a regime of inspections of onsite systems.

PROPERTY MANAGEMENT

In the drinking water catchment, it is a legal requirement that any development on your property that requires consent from Council, must have a neutral or beneficial effect on water quality, including how onsite wastewater is managed.

Within the drinking water catchments, Water NSW also requires effluent management areas to have buffer distances of 40 metres from a dam or drainage depression, 100 metres from a watercourse and 150 metres from the Wingecarribee, Nattai, Nepean, Coxs, Wollondilly, Kangaroo, Shoalhaven, Mongarlowe and Tarlo rivers. A drainage depression is a low point that carries water during rainfall events but dries out quickly once rainfall has ceased. A watercourse has beds or banks, or remains wet for considerable periods after rainfall, and so supports water-tolerant vegetation.

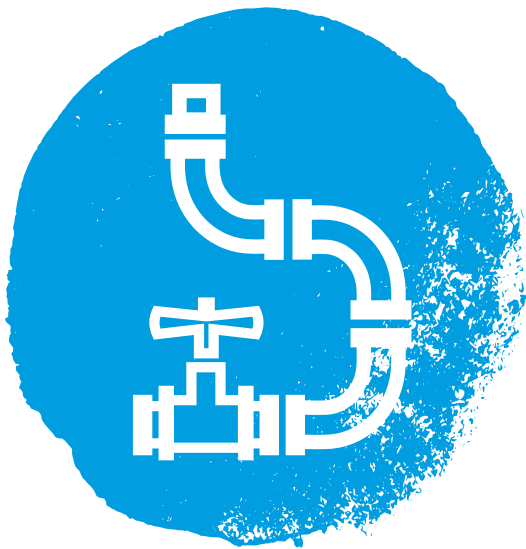
Water NSW has a current recommended practice 'Designing and Installing Onsite Wastewater Systems'. This document gives landowners additional information and requirements for designing and installing wastewater systems within the Sydney drinking water catchment.



Tips to maintain a healthy wastewater system

Many of the following suggestions will help reduce the volume of wastewater going into your onsite system and help avoid the use of chemicals that interfere with how well the system works.

- In the laundry, if you have a number of loads of washing spread them over a couple of days. This will avoid flooding the system with large amounts of water at one time.
- Use low phosphorous, or better still phosphorous-free, detergent. Phosphorous is a major pollutant of waterways and contributes to the growth of algal blooms.
- Repair leaking taps and cisterns and install a lint filter on the washing machine – a stocking over the outlet hose will do. Make sure to clean it regularly.
- If you've got a blocked drain, use boiling water or a drain eel to clear the line. Don't use caustic soda or drain cleaners in a septic tank.
- Use front loading washing machines because they use less water and detergent.
- In the kitchen, use a sink strainer. Food scraps slow down the digestion process and make solids build up more quickly. Don't pour oils and fats down the sink as they can block the system.
- In the bathroom, install a low-flow shower head to save water. Don't leave taps running unnecessarily, for instance when cleaning teeth.
- Repair leaking taps and minimise the use of commercial cleaners and bleaches – these interfere with the bacterial breakdown in the tank. Try using baking soda, vinegar or a mild soap.
- Don't flush anything down the toilet that could block the system for example, disposable wipes. Install a dual flush toilet cistern.



- Keep water from the roof downpipes and paved areas away from the tank and effluent application areas.
- Have a plumber fit an effluent filter to the septic tank outlet to keep solids in the tank and extend the life of your trenches.
- Only plant grass near the absorption field – roots from larger plants such as trees and shrubs are likely to damage the trench. Mow regularly.
- Don't drive or park or allow stock access onto any part of the absorption area. This will compact the soil and may crush the pipes and trench domes.
- Grow plants with high nutrient requirements near the drain fields and irrigation areas.
- Check surface irrigation systems for broken or missing drip, trickle or spray points.
- Check for boggy patches near effluent disposal areas, which may indicate a problem.

Landscaping and irrigation

How the area around an effluent application area is managed is just as important as how the system itself is maintained. Planting the right kind of vegetation can help keep your effluent management system in top condition. Contact Council's Environmental Protection Officer for advice before installing an irrigation system or doing landscaping around your trench area.

When choosing what to plant, consider which plants will do best in the local area and soil type, and which ones will best cope with regular doses of nutrient rich wastewater. The plants must be able to cope with nutrients such as sodium, chloride, nitrogen and phosphorous. Many Australian natives can't cope with high levels of these nutrients. Trees are not suitable as they provide shade and can damage trenches and pipes. Visit your local nursery for advice.

Generally speaking, it is best to grow a mix of summer and winter grasses on absorption areas. If treated effluent is being used to water landscaped areas, nutrient tolerant trees and shrubs should be planted.

More information

For advice about how to install and maintain an onsite wastewater system, contact Council's Environmental Protection Officer.

The publication *Designing and Installing Onsite Wastewater Systems* is available from Water NSW at www.watarnsw.com.au/water-quality/catchment/living/wastewater

For a copy of *The Easy Septic Guide*, contact the NSW Division of Local Government at www.dlg.nsw.gov.au.

Stormwater

Stormwater is rainwater plus anything the rain water runoff carries along with it. As rainwater runs across different surfaces, it can pick up various types of pollutants – including sediment from exposed soil, oil and grease from driveways and roads, leaves and animals droppings that collect in gutters, nutrients (such as nitrogen and phosphorus) from cultivated paddocks, and chemicals from lawns and gardens.

Rain that falls on the house roof, or collects on paved areas like driveways, roads and footpaths, or flows from saturated gardens and grass fields, can be carried away through stormwater pipes and canals to the creeks and rivers that may flow into major drinking water supply dams. This makes stormwater pollution from rural properties and towns in the catchment a major risk to the quality of our drinking water – a risk that everyone living in Sydney's drinking water catchment can help reduce.

What are the impacts of stormwater?

Stormwater running over rural land or from our towns can pick up a range of pollutants – dissolved chemicals from pesticides and herbicides, livestock and pet waste, sewage overflows from onsite wastewater systems, and soil from ploughed paddocks, eroded land or construction sites.

Stormwater can also alter river flows, change flooding patterns, increase flow velocity, turbidity, erosion, and affect the availability of water for irrigation.

Even plant seeds can cause problems, particularly if the stormwater also contains high levels of nutrients. Weeds can be spread downstream to neighbouring properties, bushland areas and national parks.

Benefits of managing your stormwater well

Traditionally stormwater has not been treated, although sometimes coarser materials are caught through litter traps on the end of the pipes. However, there is a shift these days towards a greater level of treatment of stormwater to reduce the impact on the environment.

In the drinking water catchment, it is a legal requirement that any development on your property that requires consent from Council, must have a neutral or beneficial effect on water quality, including how stormwater is managed.

This requirement not only helps protect drinking water quality and create healthy local waterways, it can also benefit landholders by ensuring that stormwater (as well as wastewater) is well managed on your property.

Harvesting stormwater for reuse, such as through using/installing rainwater tanks, can save on your water bills.

By reducing stormwater flows and filtering stormwater through raingardens, lawns or pastures, you can reduce soil erosion and create attractive landscape features that may add value to your property.

Water sensitive design

Water sensitive design refers to the treatment measures landowners can adopt to reduce the volume and contamination of stormwater when you are planning and building new developments on your property.

The key principles of water sensitive design are:

- **Integrating stormwater treatment into the landscape** – by using the natural drainage lines on your property (with trees and plants to retain water and help remove pollutants).
- **Reducing runoff and peak flows from your property** – by using detention basins and retention areas (such as rainwater tanks), and minimising impervious surfaces (such as bitumen or concrete).
- **Adding value while minimising development costs** – by reducing downstream drainage infrastructure due to reduced peak flows and runoff.
- **Protecting water quality** – by ensuring the stormwater flowing into waterways from your land has a neutral or beneficial effect on water quality.

Examples of water sensitive design techniques include:

- rainwater tanks
- raingardens
- wetlands
- filtration trenches
- grass swales
- porous paving
- site layout and landscaping.

Many water sensitive design measures use biological activity by plants and trees to filter and treat stormwater. One example is raingardens, which have rainwater directed to them from a downpipe or paved area. Beneath the raingarden are layers of sandy soil which help to slow the rate of stormwater entering creeks and rivers. Along with the vegetation growing in the raingarden, these layers help remove pollutants, such as nitrogen and phosphorus, fertilisers, dust, leaves and animal droppings, which are washed off hard surfaces.

More information

For more information about stormwater and water sensitive design, contact the NSW Office of Environment and Heritage at www.environment.nsw.gov.au.



Chemicals

Chemicals such as fuel, fertiliser and pesticides are commonly used to help run rural properties. These chemicals are often dangerous, some are flammable, most are poisonous, and all can be harmful to the environment if used incorrectly. For example, they can pollute waterways, particularly if they are stored or used near creeks and rivers.

There is a legal requirement to read the label and follow all directions on the container for use, storage and disposal. This is necessary to ensure the safety of you, your family and your stock and ensure there is no contamination of waterways, wetlands and groundwater. This includes properly managing contractors using chemicals on your property.

Considerable fines can be imposed for failure to transport, store, apply and dispose of chemicals and containers properly. There are also requirements under the *Pesticides Act 1999* to keep records of pesticide use and for pesticide users to undergo training.

Advice and information is available from the NSW Environment Protection Authority (chemical use, transport, regulation, education and disposal), WorkCover (safe chemical use in the workplace), and Council (general information).

Storing chemicals

Keep all chemicals in an area specially designed for this purpose. Safe storage maximises the life of pesticides and protects people, animals and the environment. It is important to be aware of the compatibility of the chemicals you are storing. As a rule, unknown chemicals should be treated as if they are incompatible with every other chemical in storage.

A farm chemical store needs to have the following features:

- Separate, well-ventilated cupboard or building used only for this purpose – located away from houses, pumps, tanks, waterways, vegetation, rubbish and animals and preferably fireproof.
- Located above flood height.
- Cool dry place protected from direct sunlight, with a good access point and easy exit.
- Clear access to emergency response equipment such as fire extinguishers.
- Some form of spillage containment or bunding.
- Adequate racks or shelves made of impervious materials for separation of compatible chemicals. For small quantities of chemicals, place containers in drip trays.
- Liquids should not be stored above solids.
- Locked storage area to prevent unauthorized access.
- Clearly sign-posted storage area (Chemical Store – Keep Out) and a no smoking sign.
- A manifest, with copies of labels and material safety data sheets located on site.
- Adequately supplied with water for washing.

Transporting farm chemicals

Everyone transporting farm chemicals has a duty of care and a responsibility to carry out tasks in a manner that will not cause harm or injury to themselves, other people, their property, animals, and the environment.

Before moving chemicals, read information on the transport requirements of individual chemicals which are often found on the label or materials safety data sheet. When collecting new containers of chemicals, check them carefully for damage and tighten lids to prevent leaks.

Make sure your vehicle is roadworthy and can safely transport chemicals. Put chemicals inside a tray of some kind that will contain any spillage. Do not put chemicals in the same compartment as the driver and passengers, food, drinks, or animals. Vapours and spills can cause illness.

Do not transport items classified as dangerous goods in large quantities. Private vehicles should transport less than 100 kilograms or 100 litres of farm chemicals at a time. Pack the load securely so items can't move or fall over and store different classes of chemicals apart. Take the most direct route back.

If any spills occur, clear the vehicle immediately. The main steps for dealing with a spill are to isolate, contain, decontaminate and dispose. Make sure you use appropriate clothing and gear to protect your skin and face, and to avoid inhaling vapours.

On arrival, put the containers straight into the chemical store. Make sure containers are not damaged.

Safe disposal of non-returnable containers and on-farm chemicals

Disposal of non-returnable crop production and on-farm animal health chemical containers is a significant problem for farmers. If you use agricultural chemicals you are legally responsible for ensuring that empty containers and unwanted chemicals are disposed of safely.

National programs called drumMUSTER and ChemClear have been set up to help farmers safely manage their farm chemicals.

The drumMUSTER program collects and recycles cleaned eligible containers. Details of collection sites are available at www.drummuster.com.au or call 1800 008 707.

The ChemClear program collects and disposes of unwanted currently registered rural chemicals. You can book online at www.chemclear.com.au or call 1800 008 182.

Agsafe, a subsidiary of CropLife Australia, manages the drumMUSTER and ChemClear programs. These initiatives were developed by the National Farmers Federation, the agricultural industry peak body CropLife Australia, Animal Health Alliance (Australia), Veterinary Manufacturers and Distributors Association, and the Australian Local Government Association.

Cleaning containers for disposal

You should rinse containers on fallow ground away from drains and waterways. Always wear personal protective equipment as specified on the label for applying, mixing and loading the pesticide.

To ensure your containers are suitable for delivery to a collection centre always follow these procedures:

- Triple or pressure rinse your containers immediately after use and pour the rinse water back into the spray tank.
- Thoroughly clean the container thread and outside surfaces with a hose into the spray tank. Rinse all caps separately into a bucket of clean water and pour rinsate into the spray tank.
- Inspect the container, thread and screw neck to ensure all chemical residue has been removed.
- Puncture metal containers through the neck/pouring opening and through the base of the container.
- Allow containers to drain completely and air dry them over a number of days.

You should store rinsed containers in a safe location until the next drumMUSTER collection is advertised in your area. The rinsed containers can also be taken to participating collection agency delivery sites. A collection calendar and information on local collection sites is available at www.drummuster.com.au.

Disposal of pesticide rinsate or diluted chemicals

Rinsate is a mixture of pesticides diluted by water, solvents, oils, commercial rinsing agents or any other substances.

The NSW Environment Protection Authority has guidelines for managing the disposal of pesticide rinsate with the following key points:

- Avoid producing pesticide rinsate in the first place.
- If possible use commercial spray contractors who deal with waste disposal as part of their service.
- Re-use rinsate generated from cleaning containers by adding it to the spray tank.
- For boom sprays with a rinse tank, the main tank and spray lines can be flushed at the application site provided that label rates are not exceeded.
- If rinsate cannot be sprayed on the application site, store it in a holding tank and arrange for a licensed waste disposal contractor to collect it.
- Always follow the product label directions on the management and disposal of rinsate.

The full guidelines are available at www.epa.nsw.gov.au.

Labels and state environmental legislation prohibit disposing of chemical concentrate on site or on a farm. You need to dilute unused chemicals if you are able to dispose of them onsite following the instruction on the label. If you are not able to apply chemicals according to the label use pattern, you must dispose of them in an environmentally responsible manner.

An evaporation pit should be one metre deep and lined with plastic sheeting sprayed with hydrated lime. Any waste must be covered with at least half a metre of soil. Disposal pits are suited only to small volumes and diluted chemicals.

Evaporation pits should be located well away from drainage depressions, creeks and rivers. The same buffers for landfills and Water NSW buffers for effluent management areas should be applied.

It is important to consider the risks associated with disposing of chemicals on site, with regards to the potential for contamination of land and

the potential for action to be taken by authorities under the *Contaminated Land Management Act 1997*. If you are unsure of the disposal options for a certain chemical, contact ChemClear to organise for the responsible disposal of unwanted chemicals, or the Environment Protection Authority for advice.



DO NOT DISPOSE OF CHEMICALS IN ANY FORM DOWN DRAINS, GULLIES OR WATERCOURSES.

Training

Training courses are available through ChemCert NSW. For example, the two day Accreditation (AQF 3) course for farm chemical users covers topics such as integrated pest management, the product label, chemical formulations and residues, personal safety, transport, storage and handling, environmental safety, legislation, risk management and record keeping. More information is available at www.chemcert.org.au or 02 9380 7271. For enrolments and course enquiries, call 1800 444 228.

TAFE NSW offers SMARTtrain® certification courses which cover storage, transportation, mixing and use of chemicals in accordance with the Code of Practice for the Safe Use and Storage of Chemicals in Agriculture (available at www.workcover.nsw.gov.au). More information and regional contact details is available at www.tafensw.edu.au. Information about training for the safe handling of chemicals is also available from the NSW Environment Protection Authority at www.epa.nsw.gov.au.

More information

The 'Spray Sense' series of leaflets, which provide advice on reading pesticide labels, transporting and storing chemicals, and disposing of empty containers, are available from the NSW Department of Primary Industries at www.dpi.nsw.gov.au/agriculture/farm/chemicals.

Council can also provide details of drumMUSTER and chemical collections through the annual Household Chemical CleanOut.

Wood smoke and heating

Smoke from wood heaters is a major cause of air pollution. During winter, wood heaters can produce up to seven times as much particulate pollution as cars. The Protection of the Environment Operations Act – Clean Air Regulation (2010) requires that all new solid fuel home heaters sold in NSW comply with emissions standards.

Local government has responsibility under the *Protection of the Environment Operations Act (1997)* to deal with complaints and excessive smoke emissions from wood heaters. Council officers use education as the primary tool to address complaints, and work with property owners to address issues with excessive smoke. If excessive smoke emissions continue, a smoke abatement notice can be issued to the occupier of the premises.

There are measures you can take to minimise pollution, improve local air quality, care for your health, and save money.

Tips for efficient wood burning and minimising pollution include the following:

Firewood storage and care

- Store wood under cover in a dry ventilated area and away from buildings.
- Freshly cut wood needs to be stored for 8 to 12 months before burning.
- Moisture creates smoke and reduces the heating ability of your wood fire.



Efficient burning techniques

- Never burn rubbish, driftwood or treated or painted wood - it can pollute the air and be poisonous.
- Keep the flame lively and bright. Your fire should only smoke for a few minutes when you light it and when you add extra fuel.
- Open air controls fully when lighting your wood heater and keep them open for 15 to 20 minutes to establish a good fire. Keep open for a similar time frame when reloading the firebox and for five minutes before adding more wood.
- Stack wood loosely in your firebox so air can circulate - don't cram the firebox full.
- When lighting a cold heater, use plenty of dry kindling to establish a good fire quickly.
- Always burn small logs of aged, dry hardwood. Unseasoned wood (green wood) has more moisture which makes a heater smoke.
- Check your chimney regularly. If there is smoke coming from the chimney increase the air supply to your fire.
- Do not let your heater smoulder overnight.

Maintenance

- Clean your wood heater flue and baffle regularly to prevent creosote build-up and restricting the air flow to your fire.
- Soot-filled flues and wood heaters will reduce the ability of your wood fuel to produce heat efficiently and will create wood smoke pollution inside your home when you open the wood heater door.

The following tips will help in reducing your heating costs:

- Insulate ceilings, walls and floors.
- Draft proof your doors and windows.
- Window coverings such as pelmets, curtains or blinds will reduce your heating costs.

- Double glazed windows have significant impacts on noise pollution and will have some impact on reducing heat transfer from your home to the outside environment.
- Close off sections of your home to reduce the amount of space requiring heating.
- Open curtains on north facing windows on sunny winter days.
- Use ceiling fans to circulate heat that has risen to the ceiling.
- Wear warm clothing.

Purchasing a wood heater

- If you are buying a new wood heater check the compliance plate on the back, which provides current Australian Standard AS/NZS 4013:1999 detail.
- A second hand wood heater may cost less initially, but will be less efficient and cost more to run over the long term.
- When comparing radiant and double-skinned combustion heaters, keep in mind that the latter are safer for children and the elderly, assist with the circulation of heat around your home and can be bought with or without a fan.

With the development of home solar power and storage solutions, operating an electric air conditioning system could be the most cost effective way to heat and cool your home. Another option is to purchase green power (energy produced from renewable energy sources) as a cleaner alternative to wood heating.



More information

For more information about wood smoke and cleaner heating, contact Council at www.wsc.nsw.gov.au/woodsmoke and the NSW Office of Environment and Heritage at www.environment.nsw.gov.au

Stock

Stocking rates

Overstocking can be a quick route to destroying your pastures and bushland, and depleting the health of your own animals. When starting out, seek advice from the Local Land Services and consider the whole environment on your block.

Always keep at least 80 percent vegetation cover to avoid erosion and degradation. If feed is scarce then fence your trees so that stock don't ringbark them.

Stocking rates and carrying capacity of land is highly variable. This is due to a number of factors including:

- pasture type (native/ introduced)
- soils type and fertility
- rainfall.

For local advice about the carrying capacity of your property, contact your Local Land Services office or www.lls.nsw.gov.au.

Animal welfare

The RSPCA promotes the following five freedoms for animals:

- Freedom from hunger and thirst.
- Freedom from discomfort.
- Freedom from pain, injury or disease.
- Freedom to express normal behaviour.
- Freedom from fear and distress.

Owners can be prosecuted by the RSPCA if they don't meet the needs of their animals.

Local Land Services

Local Land Services is the front line in the management of animal health, noxious pest animal and insect control, travelling stock reserves, stock movement, stock identification, livestock disease management, impounding livestock on private rural land, and natural disaster relief.

Rural landholders have responsibilities under both the *Local Land Services Act 2013* and the *Stock Diseases Act 1923*.

It is your responsibility to:

- Apply for a Property Identification Code (PIC) from your Local Land Services office. A PIC is required to enable you to trade livestock and manage livestock movements to and from your property.
- Lodge a land and stock return by 31 July each year.
- Pay Local Land Services rates (separate to Council rates or zoning rates) which are levied on rural land over a certain number of prescribed hectares. These rates help pay for activities such as pest animal control work, animal health management, exotic disease monitoring and management, and travelling stock reserve management.
- Control pest animals and declared pest insects.
- Report notifiable livestock diseases.
- Control stock on roads.

Local Land Services, in conjunction with the NSW Department of Primary Industries, offers a number of PROfarm courses including:

- Prograze
- LANDSCAN
- Paddock Plants (plant identification).

These courses are aimed at both new and experienced land managers and are extremely valuable in gaining a better understanding of how to manage livestock and your property.

Department of Primary Industries

The NSW Department of Primary Industries offers a range of agricultural short courses aimed at landholders. Some of the courses available through the PROfarm program include:

- Fencing
- Chainsaw operation
- Beef/sheep care and handling
- Horse care and handling
- SMARTtrain® chemical courses.

Travelling stock reserves

Local Land Services manage parcels of Crown land known as travelling stock reserves. These reserves provide pasture reserves for travelling or grazing stock and cover more than 600,000 hectares of NSW. They are especially beneficial for stock in times of drought, bushfire or flood. They are also important for public recreation, conservation and as apiary sites.

You need to get a permit from your Local Land Services office for the following activities in travelling stock reserves:

- grazing and/or walking stock
- apiary sites
- collecting seeds
- accessing water
- collecting firewood
- camping overnight.

It is illegal to use a travelling stock reserve to:

- ride motorbikes
- dump rubbish
- shoot and/or hunt.

Straying stock

You need a permit from Local Land Services to move your stock along a public road, whether on foot or by transport. Straying stock on public roads may be dealt with by Council. Straying stock on private lands may be referred to your Local Land Services office.

More information

More information about the RSPCA is available at www.rspca.org.au.

More information about Local Land Services is available at www.lls.nsw.org.au.

More information about DPI courses is available at www.dpi.nsw.gov.au/content/agriculture/profarm.



Fences

Fences are vital to successfully manage your property. Fences have various functions on rural properties. You should consider the layout of fences in a whole-of-property approach in a property plan.

You can use fences to:

- define the boundaries of your property
- manage stock
- protect the environment (keeping stock out of native vegetation or away from rivers and streams)
- control pest animals
- increase property value (by improving its look)
- erosion and vegetation rehabilitation.

There are different fence construction methods depending on what you are building the fence for. For fences to do their job properly, you need to maintain them, and keep gates shut and locked.

Wildlife friendly fences

Each year thousands of animals face a cruel death entangled on barbed wire fences.

Many nocturnal animals like bats, gliders and owls fail to see the fence or cannot clear the height in windy conditions. Over 75 wildlife species have been recorded as fence victims, most caught on the top strand.

Kangaroos and emus can get hung up on plain wire and mesh fences. If the fence is too high the animals' legs can become caught in a twist of wire. Low wires and tension droppers may prevent larger animals from squeezing through the fence.

Wildlife need to move freely and safely across our landscape unless being purposely excluded for safety and other reasons.

Here are some ways you can make your fences more wildlife and stock friendly:

- Stop and think, do you really need a fence? How will a fence affect the wildlife? If there are no animals to keep in or out, could a line of native trees do the job?

- Avoid barbed wire, when fencing livestock consider using a combination of plain wire and electric fencing. If using barbed wire, the main issues are fence placement, visibility and type of top strand, especially in entanglement hotspots.
- To reduce the risk of tangled hotspots, avoid placing barbed wire fences on ridge lines, near feed trees, across wildlife corridors, over or near water bodies.
- Increase visibility. Wire fences are often hard to see and a danger to humans and wildlife. Plastic bags offer a short-term fix. A better way to improve visibility is to use white nylon sighter wires or white electric fence tapes that flicker in the breeze.

More information

More information about wildlife friendly fencing is available at www.wildlifefriendlyfencing.com.



Stock control near creeks, rivers and streams

As far as possible, you should keep your livestock away from rivers and streams. You can pump water to troughs placed away from the stream to water stock. This will prevent erosion and degradation of the littoral (water's edge) zone vegetation and environment.

Stock should also be kept out of watercourses because they:

- eat, trample and destroy the vegetation that protects banks from erosion
- compact the soil making plant growth difficult
- push soil off steep banks
- make tracks that cause erosion
- stir up mud that can destroy aquatic habitat and reduce water quality
- add excess nutrients with manure
- scare away native fish.

Best practice to provide drinking water for stock involves using:

- a pump and trough in the paddock
- a dam in the paddock
- a bore and tanks in the paddock
- a paved ramp down to the water, preferably on the inside of a bend.

As a landholder you have a responsibility to control weeds along watercourses as in the surrounding paddocks.

Flood-prone fencing designs

In flood-prone areas, you should consider:

- designing paddocks to avoid fencing across waterways where possible
- placing fences above the floodplain and flood-prone areas
- using temporary electric fencing instead of permanent fencing
- minimising the use of vertical structures (plain wire fences tend to need less maintenance in flood-prone areas than ring lock (mesh) or hinge joint as debris is less likely to get caught).

Dividing fences

The *Dividing Fences Act 1991* sets out how the cost of a dividing fence is shared between adjoining landowners where an owner wants to erect a dividing fence or wants work done on an existing dividing fence.

The Act sets out minimum requirements, although owners may agree to arrangements exceeding these requirements. The Act also sets out the procedure to resolve disputes about the cost, type and position of a fence.

Land and Property Information, part of the NSW Department of Finance and Services, administers the *Dividing Fences Act 1991*. However, Land and Property Information do not provide advice about fencing disputes and do not provide specific legal advice about the provisions of the Act. You should seek advice about these matters from other sources including Legal Aid Services, the Chamber Magistrate at the local courthouse, LawAccess NSW, Community Justice Centres or private lawyers.

More information

For more information about grants that are available to help with providing off-stream water and fences, contact the following organisations:

- Water NSW at www.waternsw.com.au.
- Local Land Services at www.lls.nsw.gov.au.
- Landcare NSW at www.landcarensw.org.au.
- Greening Australia at www.greeningaustralia.org.au.

For more information on dividing fences regulations, contact NSW Land and Property Information at www.lpi.nsw.gov.au.

For publications about fence building, contact Tocal College at www.tocal.nsw.edu.au. The National Heritage Trust publication 'Cost effective feral animal exclusion fencing for areas of high conservation value in Australia' is available from NSW Department of Primary Industries at www.dpi.nsw.gov.au.

Grazing management

Grazing management means managing what your animals graze, rather than your animals choosing what they will eat.

Leaving stock in a paddock too long may remove desirable species through selective grazing or overgrazing, and cause pasture degradation and erosion. Excessively long rest periods or undergrazing may lead to lower feed quality, excessive waste and a change in pasture composition.

Effective grazing management means managing:

- timing (when)
- frequency (how often)
- intensity (how hard) your pastures are grazed.

A grazing management plan will help you:

- Change your grazing regime from continuous to rotational grazing, prevent overgrazing and allow pasture recovery.
- Better assess pasture condition, height and groundcover to determine appropriate stocking rates and length of grazing periods.
- Use grazing animals to manipulate the species composition balance in favour of perennial grasses and to ensure 20–30 percent legume content for high quality pastures.
- Apply higher grazing pressure in late winter/early spring to prevent legumes and annual grasses from out-competing native perennial grasses.
- Avoid defoliation of perennial grasses when they are under stress and in danger of dying.

To maintain healthy pastures for your stock, you should:

- Graze to maintain a productive perennial pasture.
- Develop a grazing plan to manage seasonal plant growth.
- Match livestock requirements to pasture availability.

More information

For more information about grazing management, contact your Local Land Services office at www.ils.nsw.gov.au.



Farm safety

Rural properties can be dangerous places to live and work. Potential hazards include vehicles, tractors and attachments, motorcycles and all-terrain vehicles, working from heights and the potential for manual handling injuries.

Farming is the third most dangerous occupation in Australia. Nearly 150 adults die from farming related injuries each year. Non-fatal injuries are much greater, numbering several thousand.

Injuries to part-time farmers are a concern. Often these people do not have the skills or equipment of full-time farmers and can be injured as a result.

Children are particularly at risk on farms because of easy access to water, including dams and creeks, and vehicles, including motorbikes and tractors. On average, 30 children under 16 years die on Australian farms each year as a result of a farm accident. Many more children are injured.

Preventing rural injuries

Just like any work environment, there are legal requirements on a farm under the *Workplace Health Safety Act 2011* to ensure a safe workplace. Be aware that ordinary house and contents insurance does not cover public liability or workers compensation which is compulsory if you employ anyone to work on a property.

You need helmets and seatbelts in the bush – even if you are just going between paddocks. Remember to always wear a seatbelt in any vehicle and a helmet when riding a motorbike.



Rural injuries can be largely prevented by paying attention to major risk areas:

- tractor and machinery safety
- farm vehicle safety
- farm motorcycle safety (including ATVs)
- working from heights safety
- chemical safety
- manual handling safety and strain injury prevention
- farm animal handling.

WorkCover provides information on preventing injuries on rural properties. The following publications, available at www.workcover.nsw.gov.au, are useful for rural landholders:

- 'Farm Safety – Starter Guide'.
- '15-minute Farm Safety Checklist'.

Here are some of the tips from the 'Farm Safety – Starter Guide':

- Map the hazards on your property. This involves drawing an outline of your property and mapping features. You can use the map as an induction tool for new employees and casual workers or contractors who come to the property.
- Identify the dangers on your property. Use this four step approach:
 1. Identify the dangers (identifying the hazards).
 2. Work out what harm the hazard can cause (assess the risks).
 3. Get rid of the hazard or control it (control the risks).
 4. Review your risk assessment on a regular basis.

It is important that all workers and all family members are included in the process. When something changes on your property, repeat the four steps.

Is your farm safe for kids?

Farms are great places for kids when we create the right environment, but safety for children on farms is a major concern. On average, one child under 16 years is fatally injured on an Australian farm every 10 days and many more are injured across rural Australia. The major causes of child deaths and injuries on farms are dams, farm vehicles, machinery, motorcycles and horses.

You need to identify hazards and risks specific to the farm for children and visitors. As well as safety behaviours, you should reduce hazards and design for safety wherever possible.

Key recommendations for child safety on farms include:

- Create a securely fenced house yard for children to play.
- Have safety rules that everyone knows and follows.
- Children should stay in the safe play area unless an adult can closely supervise them on the farm.
- Wear seatbelts and restraints when in cars, utes and trucks.
- Children should not ride on tractors, all-terrain vehicles or in the back of utes.
- Always wear helmets when riding bikes and horses.

More information

For more information and resources about farm safety, contact Farmsafe NSW at www.farmsafe.org.au and the NSW Department of Primary Industries at www.dpi.nsw.gov.au.

Safety on rural roads

Road condition

Road surfaces in rural areas are often less predictable than highways and city streets. Be alert at all times as the road surface may change without warning, sharp corners may not always be sign-posted, and the crests of hills may reduce visibility. Always be on the look-out for stock and native animals.

Scan the road ahead. You are likely to have shorter lines of sight and therefore will require shorter reaction times to evade unexpected situations.

Be aware that the tyres of other vehicles may throw up stones that crack your windscreen.

Drivers need to use different skills on gravel and unsealed roads. Dust can reduce visibility and it takes longer to stop when braking. Bends and curves can have a build-up of loose dirt or stones, and roads are often narrow. Slow down and be on the lookout for other vehicles.

Anti-lock braking systems are not as effective on loose surfaces and it is recommended that on rural roads you turn off the cruise control, reduce your speed and give yourself a lot more stopping space.

Keep left, slow down, and take extra care on crests and corners to avoid collisions.

Other road users

School buses, cyclists, trucks, slow moving farm machinery and animals use rural roads. All are legitimate road users so be patient when you come across them. Most drivers will recognise when they are holding traffic up and pull over when safe to do so for vehicles to pass.

Take care when approaching rail crossings. Not all crossings are fitted with safety lights and boom gates.

Livestock on roads

It is legal with a permit for livestock to walk along roads and graze on roadside vegetation, provided they are not left unattended and there are signs at each end of the stretch of road where stock are grazing. Livestock needs to be moved, so you can expect to be sharing the road with farm animals from time to time.

All rural landowners who own even just a few livestock must ensure that their roadside fences are kept in good condition. Domestic livestock are not allowed to roam unattended. Straying stock on public roads may be dealt with by Council.

Roadside vegetation and wildlife

There are many large trees located close to rural roads, which are easily hit when drivers lose control of their vehicle. Remember to slow down and drive to the conditions – the speed limit is the maximum and not a must.

Native vegetation along many rural roads often acts as a wildlife habitat and refuge. This can be a problem for drivers from dusk to dawn when native animals, such as kangaroos and wombats, are out looking for food.

Remember, if you can't avoid a collision with an animal it is often safer to hit them than swerve and lose control of your vehicle. If you hit an animal, check if it is alive and if it has any young. Contact an animal care organisation such as WIRES or Wildlife Rescue South Coast if the animal can be rehabilitated or euthanised. If the animal is dead, move it to the side of the road if you can. Be careful of your own safety with traffic while moving the animal.

Alcohol – managing the morning after

There is limited alternative transport in the Southern Highlands unless you're lucky enough to have a local publican with a mini-bus, so you will need to plan how you get home after a few alcoholic drinks. It is a good idea to take turns with family, friends or neighbours to stay sober and be the designated driver.

Your body needs time to get alcohol out of your system. Coffee, a big meal or cold showers will not reduce your blood alcohol content. If you have had a lot to drink, you may be over the limit for much of the next day and should not drive.

After a heavy night of drinking, it can take more than 18 hours for your blood alcohol concentration to get back to zero. Many people are booked for drink driving the next day.

More information

For more information on safe driving, contact the NSW Centre for Road Safety at www.roadsafety.transport.nsw.gov.au.



Absentee landholders

Many rural properties do not have permanent residents. These properties may have been purchased as retreats for the owners to get away from the city and can be left vacant for much of the year.

If you are an absentee landholder, you are still responsible for looking after the environment of your property and making sure that you don't contribute to problems on your land and the land of others. There is a risk that people may come to rural properties not understanding what land management involves, and they may over-extend themselves and end up damaging the land and environment.

Absence raises potential management problems, including:

- weed and pest animal control
- erosion control
- boundary fencing maintenance
- failure of the effluent management system due to lack of use.

These problems can affect neighbouring properties and cause land degradation and tension between neighbours. Council may also place notices and fines on such properties.

To avoid these potential problems, absentee landlords should consider some of the following options:

- Regularly visit your property.
- Make arrangements with farm contractors.
- Make arrangements with a farm manager.
- Negotiate with surrounding landholders to carry out work on your property, perhaps in return for agistment rights.



Developing your property

The local area is facing development pressure due to its location near Sydney and other large centres. Development pressure affects urban and rural land. There is increasing pressure for rural land to be used for purposes other than traditional farming. Conflicts can arise between adjacent land uses.

Development and planning issues are considered by applying the controls set out in Council's Local Environmental Plan and Development Control Plans. More details about the *Wingecarribee Local Planning Strategy 2015-2031* and the Local Environmental Plan can be found in the Local Information section on pages 64-65.

Heritage

Aboriginal heritage

Aboriginal heritage includes items that are both physical (places, sites and artefacts) and intangible (values, cultural practices, beliefs, spirituality, laws, traditions and knowledge). This heritage links generations of Aboriginal people over time.

The country in its entirety is the basis for Aboriginal people's spirituality, customary law and ways of living, including identity and the ethic for custodianship – caring for and protecting their country. Landscapes, sites, plants, animals and artefacts are all inherently linked to Aboriginal people and as such, all aspects of the natural environment may be important to Aboriginal people as part of their heritage.

Protecting and conserving Aboriginal heritage

Aboriginal heritage is unique, and an irreplaceable part of Australia's national cultural heritage. Protecting and conserving Aboriginal heritage values and places is an important part of the whole community's 'sense of place' and cultural identity. This applies to every current and future generation of Australians, and those who identify themselves as Aboriginal.

Many activities can unintentionally damage Aboriginal heritage, due to lack of awareness or understanding. The significance of some Aboriginal heritage sites may be partly that they are not openly known about and will only be disclosed under direct threat of damage or desecration. Uncertainty about Aboriginal heritage should not be used as justification for proceeding with activities that may cause damage. If you are unsure about the presence or significance of artefacts or sites, you should use a precautionary approach. That is, stop any activities that may cause damage until you are sure it is safe to proceed.

If you think places or items on your property may be considered Aboriginal heritage, seek advice from your Local Aboriginal Land Council office or the NSW Office of Environment and Heritage. Consultation and negotiation with Aboriginal stakeholders is the best way of protecting and conserving Aboriginal heritage. Adhering to cultural restrictions on information about an Aboriginal heritage place is also essential to protecting and conserving its heritage value. Protecting and conserving Aboriginal heritage must comply with customary law, relevant Federal and State laws, and relevant International treaties and covenants.

More information

Aboriginal people are the primary source of information on the value of their heritage and how it is best protected and conserved.

For more information contact an Aboriginal officer from one of the following organisations:

- NSW Aboriginal Land Council at www.alc.org.au and your local Aboriginal Land Council.
- NSW Office of Environment and Heritage (NSW National Parks and Wildlife Service) at www.environment.nsw.gov.au.
- Local Land Services at www.lls.nsw.gov.au.
- Heritage Council of NSW at www.environment.nsw.gov.au/heritage.
- NSW Department of Aboriginal Affairs at www.aboriginalaffairs.nsw.gov.au.
- National Native Title Tribunal at www.nntt.gov.au.

European heritage

Rural NSW has a rich and varied European heritage. From the earliest years of settlement regional NSW has been important in the development of Australia.

Along with remnant structures consideration needs to be given to the possibility of archaeological sites, or to places which might hold historical significance but that do not contain a historical building, structure or other physical remains.

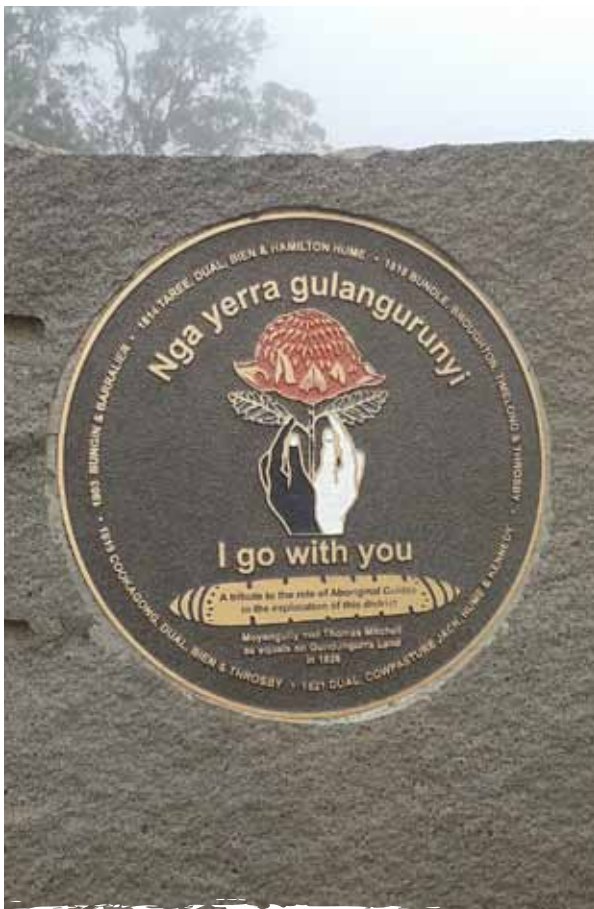
Your property may contain remnants of European heritage. European heritage can take many forms, including

- archaeology
- ruins
- remnant buildings and structures that are still in use.

Your property may be listed on Council’s Local Environmental Plan as an item of heritage or may be within a heritage conservation area or landscape conservation area. If you propose undertaking work that will have a heritage impact you may be required to take the significance of the heritage item into account.

European exploration and the following settlement of areas outside Sydney began in earnest around 1800. Surveyors followed the explorers and convict gangs built roads with camps set up along the routes to house troops and convicts. Early settlers built simple housing at first and upgraded as resources allowed so that on rural properties there are often sequential buildings remaining in part or whole.

Remnants of farm life and management are also often found. Outbuildings, fence lines, troughs, machinery, holding yards, and sheering sheds are all part of the interpretation of a place. Convicts were placed on rural properties up to the 1850s and examples of their lives and work can be found on the earliest properties.



More information

For more information contact Council, local historical society or visit the local history room in your library.

Council's role in development

Councils are responsible for determining land use zones, in consultation with government agencies and their communities. While not everyone might agree with the final outcome, everyone has the opportunity to have their say. There are rigorous procedures to evaluate land before approval is given to change land use.

When you purchase your rural block you should ask Council a number of questions about the planning controls relating to your block and surrounding land:

- Are there any development applications current for the nearby area?
- Have other developments been approved but not commenced?
- Does the minimum lot size of surrounding land permit future subdivision? While you might have purchased a block of land in a rural area, further subdivision of adjacent land could be possible. Your rural outlook could change if such subdivision is approved.
- Are there any restrictions on obtaining approval to build a house or other buildings on your block, or to develop certain desired land uses?

You should also check with your Local Land Services office if there are any Property Vegetation Plans or Management Agreements for your land.

You have the right to view any current development applications at Council. Where an application is currently advertised you can make a submission to Council about your concerns.

Detailed information about how a property can be used and restrictions on development is found in the Section 149 Planning Certificate for the property. When you buy or sell land, the *Conveyancing Act 1919* requires a Section 149 Planning Certificate to be attached to the contract of sale. You can apply for a Section 149 Planning Certificate by contacting Council. This is the only way of confirming what planning controls and other relevant site constraints for example flood or bush fire risk apply to your land.

Building

Council assesses building and development proposals against development regulations, including the Local Environmental Plan and Development Control Plans, the Building Code of Australia and relevant State Environmental Planning Policies (SEPPs), such as SEPP (Sydney Drinking Water Catchment) 2011.

Under the *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*, proposals need to undertake a simple assessment to identify potential risks to water quality (such as effluent disposal, erosion from land clearing and sediment from construction) and ways to avoid any adverse impacts from those risks (such as by applying current recommended practices and standards).

Landholders need to demonstrate a neutral or beneficial effect on water quality for new developments, expansions of existing developments, or any changes in activity on their land that require consent under the Council's Local Environmental Plan. The neutral or beneficial effect on water quality test does not apply to existing land uses.



PROPERTY MANAGEMENT

If you are preparing a development application, contact Council early to ensure that documentation meets Council's standards and for any other help.

Exempt development

Some types of low-impact development may be exempt from the need to obtain planning or construction approval.

If certain development standards are met, specific types of development can be built without needing to be approved by either Council or an accredited certifier. However, other legislation requirements for approvals, licences, permits and authorities may still apply.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP) specifies the type of development which is exempt development. It typically covers small-scale structures that will have minimal impact on the local environment.

Examples of work that may be exempt include:

- garden sheds
- rainwater tanks
- minor building alterations
- different use of a building.

Contact Council for more information about exempt developments.

Complying development

Complying development is development that is considered to be predictable in its environmental impact and is therefore of minor consequence. Complying development does not apply to all land and is subject to the application meeting pre-set development standards.

If your proposed development satisfies the complying development requirements of the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, you can apply for a complying development certificate from Council or a qualified professional in the private sector (known as a Private Certifying Authority).

Examples of work that may be complying development include:

- dwelling houses (new, alterations and additions), including structures such as carports and garages
- swimming pools
- industrial uses (change of use and internal alterations)
- commercial uses (change of use and internal alterations)
- bed and breakfast accommodation
- subdivision
- boundary adjustment
- temporary buildings.

Contact your local Council for more details about complying development.

Local development

If the work you wish to undertake is neither exempt nor complying development, it will most likely be a local development. If this is the case, then you will need to lodge a development application (DA) with Council.

Why submit a development application?

You are legally bound to submit a development application to Council for any building, demolition and subdivision works and for any development requiring consent under the Local Environmental Plan.

Development applications are required so that Council can assess your plans and information, inspect your property and determine whether your proposal is appropriate. Remember – if you are in doubt, please ask Council as time spent early may avoid delays later.

Development steps

The following steps may be involved in lodging a development application (DA) with Council.

1. Establish what development is permissible on your property. Understand what potential constraints affect your property and what controls apply to your proposed development.
2. Talk to Council, who can provide valuable information and feedback on what you would like to do. Informal meetings can provide a general indication as to whether your proposal meets the objectives of relevant planning controls, and can identify issues that you will need to address in your DA. For larger proposals, it would be useful to have prior discussions with an assessing officer. An assessing officer will determine if a pre-lodgement meeting with senior staff is necessary.
3. Talk to your neighbours. Although you are not required to consult your neighbours when considering a proposal on your site, Council encourages you to discuss your development proposal with your neighbours. This can often overcome any concerns your neighbours may have with your plans. If your neighbours have an understanding of your proposal and any concerns are taken into account, it may reduce the number of objections that Council may receive when the DA is formally notified. You may also wish to talk to local community groups about your concept plans to assist them to understand your proposal. You can then consider their concerns and seek to compromise to achieve a satisfactory outcome.
4. Consider all design issues taking into account the site, its context, and specific development controls that apply to the proposal, under the Rural Lands or Rural Living Development Control Plans, copies of which are available on Council's website. Any hazards or other constraints that affect the site should be considered early on in the design stage, prior to completing concept plans.

5. Engage a suitable professional. When preparing a DA, you will generally need, at a minimum, to employ the services of a designer or draftsman. Proposals that are more complicated may require the services of an architect and a qualified consultant town planner to prepare your statement of environmental effects. Your town planner will also be able to advise if you need to consider engaging other professionals such as a heritage professional, traffic planner, engineer or registered surveyor.

Councils cannot make recommendations, however, if you need advice about a suitable consultant planner, you may contact the NSW Branch of the Planning Institute of Australia at www.planning.org.au/nsw. Contact the Australian Institute of Architects on 1800 770 617 for details about local architects suitable for your proposed development.

6. Ensure that your application is adequate, complete and correct to avoid delays in processing your application. Council may provide a checklist to help you ensure all criteria is met before lodging your application.
7. Lodge your application with Council.

More information

For more information about developments on your property, contact Council.

For more information on development within the Sydney drinking water catchment, contact Water NSW at www.waternsw.com.au.

Information on *State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011* and *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*, which may affect development on your property is available on the NSW Government's legislation website at www.legislation.nsw.gov.au.

Improving your skills

Knowledge about sustainable land management is growing rapidly. Getting up-to-date, accurate information will help you enjoy your land. Landcare and producer groups provide a good way of building knowledge and sharing experience, and there are many quality publications available. Government departments are also an excellent source of information.

Think about what training you need to manage your land appropriately. Many courses are available covering animal and horticultural production, farm and environment management, chemical use, property management planning and fencing techniques.

TAFE conducts many rural studies courses including:

- wool classing
- sheep shearing
- horticulture
- viticulture
- agriculture (crop and livestock management)
- aquaculture
- natural resources and environmental management
- forestry.

The NSW Department of Primary Industries and Local Land Services also provide a range of training, workshop and field day activities on a range of land and livestock management topics. Refer to the Property Management section of this handbook.

More information

For more information about courses, training and field days, contact one of the following organisations:

- TAFE NSW at www.tafensw.edu.au.
- NSW Department of Primary Industries at www.dpi.nsw.gov.au.
- Local Land Services at www.lls.nsw.gov.au.



Making a living

Rural landholders are, in some ways, guardians of productive land. There is great potential to manage natural resources wisely, enhance local biodiversity, be a great neighbour and at the same time produce food, fibre or other useful farm products for the community.

Shortening the distance between where our food and raw materials are produced, and where they are consumed, is vital in transitioning towards sustainability. From pastured poultry to herbs, local bush foods to honey, rural landholders are encouraged to become part of a vibrant and diversified local food system in their area – even in a small way.

Farmers markets can provide an outlet for local and emerging producers to directly market produce to consumers, gaining vital feedback and an immediate return.

Farm gate stalls are a popular feature of rural landscapes, and can help to provide an alternative point of sale/publicity outlet for your produce.

Farm Gate Sales

Farm gate sales are also known as roadside stalls.

There are restrictions on the location of farm gate sales and maximum area allowed, due to safety and amenity issues. Refer to the *Wingecarribee Local Environmental Plan (2010)* at www.legislation.nsw.gov.au, and to the relevant DCP or contact the council directly for more information.

Community supported agriculture describes a direct relationship between consumers, who agree to a subscription model of upfront payment for produce, and growers who supply an agreed amount of produce on a regular basis.

Seek out local associations for insights into the local food system and potential niches. There may be associations for small farmers, community gardens, permaculture, food alliances, cooperatives, beekeepers or breeders of traditional varieties of animals or veggies, able to help you research ways in which your land may be able to become productive.

Some website links are provided at the end of this handbook.





LOCAL INFORMATION

Our Shire

Environment and lifestyle are the major draw cards for residents choosing to live in the Southern Highlands. With a landscape that includes rainforests, escarpment forests, woodlands, unique villages and farm land, our environment is highly valued by our community.

Wingecarribee 2031+

The *Wingecarribee Community Strategic Plan 2031+* (W2031+) sets the strategic direction and vision for the local government area to 2031 and beyond. The vision was developed with community consultation and guides the *Wingecarribee Local Environmental Plan* (WLEP 2010) and operational plans and budgets.

For more information visit the Wingecarribee Shire Council (WSC) website (NB: All websites referred to in this document are listed at the end of this handbook).

Wingecarribee Local Planning Strategy 2015-2031

The *Wingecarribee Local Planning Strategy 2015-2031* (WLPS 2015-2031), approved by Council on 23 March 2016, provides a 'snapshot' of the Shire in 2015 and aligns with the vision and goals of the W2031+. It also identifies the key issues most likely to affect our land use options over the next 16 years whilst also respecting our community's goals and priorities. These include retaining a largely rural character across the Shire and maintaining a rural buffer between our towns and villages. It identifies a long-term direction for the future development of the Shire, upon which any proposed amendments to the Local Environmental Plan (LEP) can be based.

Wingecarribee Local Environmental Plan 2010

The *Wingecarribee Local Environmental Plan* (WLEP 2010) states what forms of development may occur where and what forms of development are prohibited. It is our overarching town planning document. A principal objective of the WLEP – Part 1 Clause 1.2 (2)(a) is to “conserve and enhance for current and future generations, the ecological integrity, environmental heritage, and environmental significance of Wingecarribee.”

To view the WLEP 2010 visit the NSW Legislation website at www.legislation.nsw.gov.au and search or browse Environmental Planning Instruments using the term “Wingecarribee”.

Regional Wildlife Corridors

The Southern Highlands Link is an important component of the Great Eastern Ranges (GER), a National landscape-scale corridor linking natural assets and areas between Victoria and Queensland along the east coast and tablelands of Australia.

Regional corridors within Wingecarribee Shire create linkages from the north to the south and east to west, and these significant land areas are mapped under the WLEP 2010. Land within these corridors can obtain support and funding through GER, LLS-South East and WSC private land conservation programs.

Development Control Plans

Development Control Plans (DCPs) contain the details of controls for development throughout the shire. They guide potential applicants located within villages and towns and specific land zonings on certain controls that are associated with development applications and construction certificates. For more information on the DCP applicable to your location visit the WSC website.

Every parcel of land in the Shire has a DCP applicable to it which provides specific controls for the various types of development permissible under the LEP. Non urban land, that is land outside of the towns and villages is covered by either the Rural Lands DCP or the Rural Living DCP.

These DCPs are divided into two parts, Part A – Managing our Rural Lands and Part B - Development – Specific Controls. The Rural Lands DCP includes land zoned SP3 (Tourist), RU1 (Primary Production), RU2 (Rural Landscape) and E3 (Environmental Management). The area of E3 zoned land is the most extensive, and the primary purpose of the zoning is to ‘protect, manage and restore areas of the shire with special ecological, scientific, cultural or aesthetic values.’ (Rural Lands DCP Section A 2.5.4).

The Rural Living DCP applies to zones RU4 (Primary Production Small Lots) and E4 (Environmental Living). These controls are triggered in the event of a land use application being received by WSC.

Ecologically Sustainable Development (ESD) in Section 3 refers to the protection of endangered ecological communities, threatened species, wetlands and riparian land. Section 4 refers to vegetation management.

Hedges and Rural Vistas

The rural vistas of the Southern Highlands are an important amenity and tourism draw card and were being threatened by planted privacy and windbreak vegetative screens. The most significant rural vistas were mapped and rated as ‘very high’ or ‘high’, and so development controls were linked to these areas.

The DCPs contain these controls. The purpose of these controls is to prevent further loss of rural vistas within the shire, and further loss of visual amenity, loss of solar access and that appropriate species are selected for plantings adjoining roadsides. The controls come into effect in relation to landscaping associated with new dwellings and the protection of ridgelines from new dwelling constructions.

LOCAL INFORMATION

Riparian Land Setbacks and Protection

Riparian land is that land adjoining any watercourse or river and includes the bed and banks of the watercourse. It also includes wetlands, which often form along reaches of rivers or as a result of some impediment to flow, such as a road culvert. These areas are important habitat features of the landscape and can form corridors for wildlife and need to be managed for conservation and water quality outcomes.

Our Natural Assets

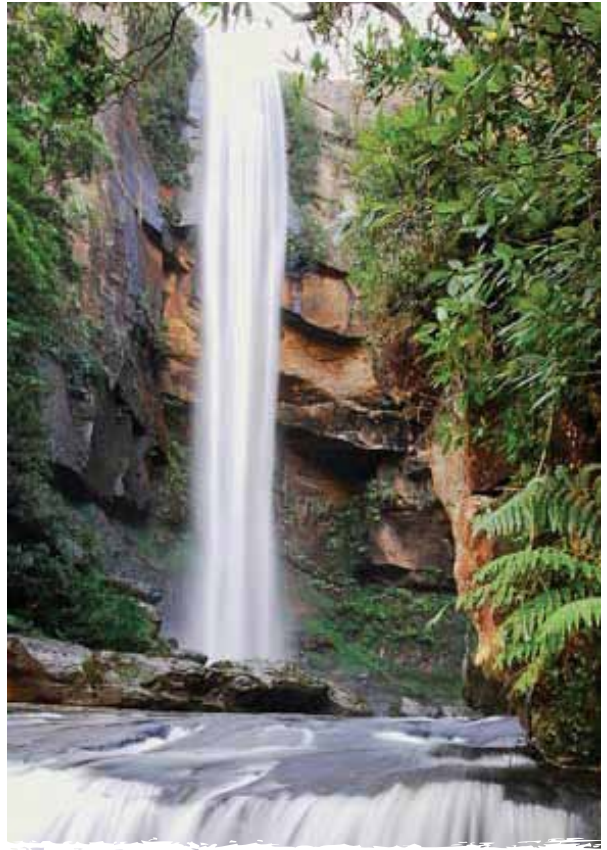
Wingecarribee Shire has many natural assets that provide ecosystem services to residents, visitors, neighbouring communities and Sydney. The geology, soil, ground and surface water, creeks, rivers, wetlands, and plant, animal and invertebrate biodiversity are highly valuable natural assets that need to be protected and looked after for future generations and for their intrinsic values.

You have chosen to live in a biodiversity hotspot, with significant numbers of vertebrate animals and plants recorded here. Council, through its various programs, plans and policies, aims to help protect and conserve what is left, for the future enjoyment of its citizens.

Some of the ecosystem services provided by these natural assets such as fuel, potable water, water for irrigation and stock and domestic use, pollination, resilience, soil formation and retention, pest regulation, enables farms to be viable and sustainable and also helps to maintain a healthy catchment for the supply of water to Australia's most populous city.

Wingecarribee Environment Levy

A separate environment levy is collected from landowners to support the environmental goals of the 2031+ Community Strategic Plan through environment and sustainability projects within the Shire. The levy has been used since 2000 to deliver bush regeneration projects in our bushland reserves, to support the Landcare and Bushcare groups within the shire, to support private land conservation and the Rural Partners Program, to deliver School's Environment Day, facilitate



World Environment Day, to deliver solar energy projects, water quality testing services, wood smoke reduction programs and other sustainability projects. A lot is achieved with a relatively small budget, and the Environment and Sustainability Branch within WSC delivers most of the programs and projects, with assistance from all other branches within Council. For more information visit the WSC website.

FAQ

- **How can I support my local community?** There are many ways you can get involved in your local community. You can have your say on Council projects, policies and proposals via the main web page. There are village associations, business and volunteer groups and community halls that provide other opportunities to get involved. There are a large number of social media pages that can keep you connected and up-to-date. Contact the Community Engagement Coordinator at WSC for more information.
- **How can I get involved in a Landcare or Bushcare group?** Contact Council's Natural Resources Officer (Community Support).
- **Can I join Land for Wildlife?** Landholders with a commitment to wildlife conservation and with at least 0.5 hectare of intact natural rainforest, wetland, woodland, forest or grassland, can apply to register for membership.
- **Where do I find information resources?** The Wingecarribee Shire Council and the Southern Highlands Welcome Centre websites are good to visit to find out information about events, policies, opportunities to have your say on proposals or surveys, and facilities. The Welcome Centre at Mittagong has resources and maps and gifts for visitors to the region. Wingecarribee Web is a quarterly e-newsletter on events and information relating to environment and sustainability issues. There are many other information resources available at the Customer Service counter at Council's Civic Centre in Moss Vale, including Bushfire Survival Plans.

Rural Infrastructure and Services

Southern Regional Livestock Exchange

The SRLX is a state-of-the-art regional covered livestock sales facility, situated on Berrima Road, between Moss Vale and Berrima, and currently processes around 60,000 cattle per year, and other livestock including sheep and horses, with an annual gross turnover of approximately 30-35 million dollars per year. It is currently run as a business unit of WSC.

For more information and contact details, visit www.srlx.com.au.

Resource Recovery Centre and Waste Collection

The RRC is located at 177 Berrima Road Moss Vale, and is a modern waste recycling, collection and transfer facility, continually aiming to reduce waste going to landfill. Products available for sale include mulch, wood chip and different-sized rubble. Opening hours are from 7.30 am to 4.30 pm with closures listed on the website.

For more information on waste and recycling collections in rural areas visit waste.wsc.nsw.gov.au.



LOCAL INFORMATION

Protect and Grow

There are many ways for people to get involved in helping conserve and protect our unique environment.

In addition to the numerous community groups that focus on a range of environmental issues, residents are able to actively participate in Council-supported programs:

Bushcare

A program that integrates the community with the management of publicly owned bushland. Members of the community are welcome to play an active role in bushland rehabilitation and assist Council with management issues related to the reserves.

- www.wsc.nsw.gov.au/bushcare

Community Gardens

Community Gardens encourage communities and residents to create a more self-provisioning economy by growing their own food.

- www.wsc.nsw.gov.au/community-gardens

Habitat for Wildlife

Habitat for Wildlife is about providing a backyard garden that is wildlife friendly, and is for people who live in towns and villages in the Shire and who love native animals.

- www.wsc.nsw.gov.au/habitat-for-wildlife

Land for Wildlife

A voluntary, entry-level conservation program that does not change the legal status of the property. Council provides free comprehensive property assessments, resources and a social network for members.

Land for Wildlife network participants receive bi-annual electronic newsletters on issues relating to natural resource management and wildlife conservation.

- www.wsc.nsw.gov.au/land-for-wildlife



Private Land Conservation

Council can provide financial assistance for landholders to retain remnant endangered ecological communities on their property with the aim of conserving wildlife habitat and to create corridors of vegetation within the Shire.

- www.wsc.nsw.gov.au/private-land-conservation

Southern Highlands Koala Conservation Project

The Southern Highlands Koala Conservation Project aims to conserve the koala population in the Southern Highlands. The project involves a number of key agencies including the NSW Office of Environment & Heritage, Sydney University, as well as Wingecarribee Shire Council (via the Environment Levy).

- www.wsc.nsw.gov.au/koalas

Rural Networks

Government

Wingecarribee Shire Council

Wingecarribee Shire Council is the local government authority concerned with land use planning and management in the Southern Highlands of NSW.

www.wsc.nsw.gov.au

Resource Recovery Centre

The Resource Recovery Centre is a multi-award winning, modern waste recycling, collection and transfer facility aiming to reduce the volume of local waste going into landfill.

waste.wsc.nsw.gov.au

Southern Regional Livestock Exchange (SRLX)

The SRLX is a community focused sale yard with a current turnover of around 60,000 head of cattle per year.

www.srlx.com.au

Southern Highlands Welcome Centre

Destination Southern Highlands lists festivals and events, promotions, trails and experiences, and the Welcome Centre is well worth a visit and is located on the Old Hume Highway at the northern entrance to Mittagong

www.southern-highlands.com.au

South East Local Land Services

Local Land Services provides advice and services related to agricultural production, biosecurity, natural resource management and emergency management. The Southern Highlands office located in Moss Vale.

www.southeast.lls.nsw.gov.au/our-region/contact-us

DPI – Soil Conservation Service

The SCS is a commercial entity within the DPI and is an environmental consulting and soil conservation business specialising in land rehabilitation, erosion control, project management and resource protection.

www.scs.nsw.gov.au

DPI Water

The DPI Water provides advice and licensing services for all water extraction activities including farm dams.

www.water.nsw.gov.au

1800 353 104

water.enquiries@dpi.nsw.gov.au

LOCAL INFORMATION

DPI Lands	DPI Lands is an agency that administers and manages Crown Land in NSW.	www.crownland.nsw.gov.au
NSW Office of Environment and Heritage	OEH works with the community and individuals to help protect our environment and heritage. The website is a great resource for rural landholders seeking information about threatened species, citizen science projects, vegetation communities, national parks and other reserved land.	www.environment.nsw.gov.au
WaterNSW	WaterNSW is Australia's largest water supplier. WaterNSW develops infrastructure solutions for water supply security and reliability. This bulk water supplier manages 42 large dams across NSW and the delivery of water from dams, pipelines and the State's rivers for agriculture and drinking water supply customers. WaterNSW works to protect the health of drinking water catchments that supply among the highest quality water in the world.	www.watnsw.com.au
NSW Rural Fire Service	The RFS is the world's largest volunteer fire service. Activities include attending: bush, grass, house and structural fires, storm damage, search and rescue, motor vehicle accidents, community education and bush fire mitigation.	www.rfs.nsw.gov.au
Fire and Rescue NSW	FRNSW is an urban fire and rescue service, and manages fire emergencies in NSW's major cities and towns. They work with other government agencies to minimise the impact of other emergencies. They also run prevention and preparedness programs.	www.fire.nsw.gov.au

Non Government and Corporate

Australian Plant Society

This society is a not-for-profit, independent, incorporated group with the aim of fostering and promoting appreciation, study and participation in growing and propagating Australian native plants.

www.austplants.com.au

BirdLife Australia – Southern Highlands Branch

BirdLife Australia is about creating a bright future for Australian birds. They undertake projects, advocacy work and research and run the Birds in Backyards program.

www.birdlife.org.au/locations/birdlife-southern-highlands

Forestry Corporation of NSW

A state owned corporation which manages more than two million hectares of forests in NSW, contributing nearly three billion dollars to the economy.

www.forestrycorporation.com.au

Foundation for National Parks & Wildlife

The FNPW supports projects and programs to benefit wildlife and national parks from philanthropic donations.

www.fnpw.org.au

Great Eastern Ranges

The Great Eastern Ranges Initiative is a national biodiversity connectivity project and is a strategic response to climate change, invasive species, land clearing and other threats to biodiversity and iconic landscapes.

www.greateasternranges.org.au

Greening Australia

GA provides conservation and planning services for Australian landscapes.

www.greeningaustralia.org.au

Landcare

Landcare NSW has 11 regions including our region, Greater Sydney. The regional facilitator is hosted by Local Land Services. Networking and volunteer support and practical workshops for landholders are aspects of Landcare to assist landholders with best practice in natural resource management.

www.landcarensw.org.au/your-region/greater-sydney

LOCAL INFORMATION

Wildlife Rescue South Coast

A volunteer-based wildlife rescue and rehabilitation provider for a large region including the Southern Highlands. A 24 hour hotline provides support for injured and sick wildlife and carers are licensed and trained to rehabilitate and release wildlife.

www.wildlife-rescue.org.au

WIRES

Over 2500 volunteers in 27 branches are involved in the rescue and care of wildlife. A dedicated rescue office operates 365 days a year assisting the community to help native animals in distress.

www.wires.org.au

Community Gardens

Wingecarribee Shire Council supports community gardens in the shire, including Bundanoon, East Bowral, and Moss Vale and the Southern Highlands Community Farm. The annual Grow Cook East festival is organised by On the Grow and is where locally-grown food is celebrated.

www.wsc.nsw.gov.au/community-gardens

Southern Highlands Food and Wine Clusters

The Southern Highlands Food & Wine Clusters are an initiative of Moss Vale Rural Chamber of Commerce, representing more than 100 regional growers and producers. Each cluster offers an authentic taste of the local lifestyle; sublime produce, historic ambience and gastronomic delights for which the region is renowned.

southernhighlandsfoodandwineclusters.com.au

NSW Farmers

NSW Farmers is a strong and united voice for members on issues that affect their business, farms and families. They provide advocacy and other services to farming families.

www.nswfarmers.org.au

Southern Highlands Food and Wine

The Southern Highlands Food & Wine Association is a non-profit organisation dedicated to the promotion and showcasing of the food, wine, producers and people of the magnificent Southern Highlands.

www.southernhighlandsfoodandwine.com.au

Notes

A series of horizontal dotted lines for taking notes.



ACRONYMS

ACCU	Australian Carbon Credit Units	NSW	New South Wales
ATV	All-terrain vehicle	OEH	Office of Environment and Heritage
DCP	Development Control Plan	PVP	Property Vegetation Plan
DPI	Department of Primary Industries	RAMA	Routine agricultural management activity
E&S	Environment and Sustainability Branch (of WSC)	RFS	Rural Fire Service
EEC	Endangered Ecological Community	RRC	Resource Recovery Centre
HRC	Hazard Reduction Certificate	RSPCA	Royal Society for the Prevention of Cruelty to Animals
LEP	Local Environmental Plan	SCS	Soil Conservation Service
LFW	Land for Wildlife	SRLE	Southern Regional Livestock Exchange
LGA	Local Government Area	TSR	Travelling stock reserve
LHPA	Livestock Health and Pest Authority	VCP	Vegetation Conservation Program
LLS	Local Land Services	WIRES	Wildlife Information and Rescue Service
MHRDC	Maximum harvestable right dam capacity	WLEP	Wingecarribee Local Environmental Plan (2010)
NATA	National Association of Testing Authorities, Australia	WSC	Wingecarribee Shire Council
NPWS	National Parks and Wildlife Service		



Rural Living Handbook

A guide for rural landholders

Becoming a rural resident – even a part-time one – can bring much enjoyment – but it also creates many responsibilities and inevitably raises many questions. Even the smallest rural blocks will provide a challenge if you have never before encountered noxious weeds, prepared for bushfire season or managed an effluent system. Wingecarribee Shire Council is providing this handbook to let you know about the many resources available to you living here, as well as your responsibilities (particularly legal requirements).

Keep this handbook as a helpful reference that you can refer to time and time again. Laws and policies change over time, so regularly check Council's website for updated versions of this manual.

This handbook provides useful information about:

- Buying your property
- Natural resources
- Property management
- Local information

Produced by Wingecarribee Shire Council
Version 1 Revision 0